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ABSTRACT

This report presents the results of the 1998 NAEP (National Assessment of Educational Progress) writing assessment of fourth-, eighth-, and twelfth-grade students for the nation and for participating states or jurisdictions. It provides results for subgroups of students defined by various background and contextual characteristics. The Introduction frames the results by describing the objectives of the assessment and the kinds of questions it contained. Chapter 1 presents national results, including achievement level definitions and results, and exemplars of student writing from the assessment at each of the three achievement levels: Basic, Proficient, and Advanced. This is the first time NAEP has set achievement levels for writing. Chapters 2 and 3 present results for regions of the country and for subgroups of students (for example, male and female students), by average scale scores and achievement levels, respectively. Chapter 4 provides information about some instructional practices. In that chapter, students' answers to such questions as "how often does your teacher talk to you about your writing" are reported, along with student performance data. Chapter 5 presents results of the state-by-state assessment done at grade 8, which was the first NAEP state-by-state assessment in writing. That chapter also reports results by subgroups of the population in each

participating state or jurisdiction. Chapter 6 explores in greater depth how student writing on the assessment was evaluated. It shows the scoring guides that were used and reports on student performance in narrative, informative, and persuasive writing. Chapter 6 also provides additional samples of student writing. Contains numerous tables and figures of data. Appendixes contain: information about procedures for the administration and evaluation of the assessment, as well as about how subgroups (such as race/ethnicity) were defined; standard errors for tables included in the body of the report; the percentage of students in each subgroup by state or jurisdiction; other contextual information, such as expenditures on education, from nonNAEP sources such as the census; more detailed achievement level results for subgroups of students; and results for students in nonpublic schools. (RS)

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NAEP 1998
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September 1999

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NAEP 1998
Writing
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September 1999

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EXECUTIVE SUMMARY

The National Assessment of Educational Progress (NAEP) is the nation's only ongoing survey of what students know and can do in various academic subject areas. Authorized by Congress and administered by the National Center for Education Statistics in the U.S. Department of Education, NAEP regularly reports to the public on the educational progress of students in grades 4, 8, and 12. In 1998 NAEP conducted a national writing assessment of fourth-, eighth-, and twelfth-grade students and a state-by-state writing assessment of eighth-grade students.

This report presents the results of the NAEP 1998 writing assessment for the nation and for participating states and jurisdictions. Students' performance on the assessment is described in terms of their average writing score on a 0-to-300 scale and in terms of the percentage of students attaining each of three achievement levels: *Basic*, *Proficient*, and *Advanced*.

The achievement levels are performance standards adopted by the National Assessment Governing Board (NAGB) as part of its statutory responsibilities. The achievement levels are collective judgments of what students should know and be able to do for each grade tested. They are based on recommendations by broadly representative panels of classroom teachers, education specialists, and members of the general public.

As provided by law, the Acting Commissioner of Education Statistics, upon review of a congressionally mandated evaluation of NAEP, has determined that the achievement levels are to be considered developmental and should be interpreted and used with caution. However, both the Acting Commissioner and NAGB believe these performance standards are useful for understanding student achievement. They have been widely used by national and state officials, including the National Education Goals Panel, as a common yardstick of academic performance.

In addition to providing average scores and achievement level performance for the nation and 39 states and other jurisdictions, this report provides results for subgroups of students defined by various background and contextual characteristics. A summary of major findings from the NAEP 1998 writing assessment is presented on the following pages, preceded by a summary of the assessment content.

A Description of the NAEP Writing Assessment

The assessment included a variety of writing "prompts" (topics to which students responded) to inspire students' best "first-draft" writing. *The Writing Framework and Specifications for the 1998 National Assessment of Educational Progress* provided the objectives for the writing assessment. This framework, developed by NAGB, represents the expertise and experience of writing teachers, researchers and scholars, business leaders, and policymakers. The six objectives for the assessment, and how they were met, are listed below.

OBJECTIVE 1:

Students should write for a variety of purposes: narrative, informative, and persuasive.

Students at grades 4, 8, and 12 responded to prompts asking for narrative, informative, and persuasive writing.

OBJECTIVE 2:

Students should write on a variety of tasks and for many different audiences.

The 66 prompts on the writing assessment presented students with a variety of tasks, such as writing a letter to the editor of a newspaper, offering advice to younger students, reporting to a school committee, and writing a story in the voice of a character.

OBJECTIVE 3:

Students should write from a variety of stimulus materials, and within various time constraints.

Some of the prompts included pictures, photographs, poems, or stories to inspire students' writing. Some students at grades 8 and 12 received one 50-minute prompt. All other students received two 25-minute prompts.

OBJECTIVE 4:

Students should generate, draft, revise, and edit ideas and forms of expression in their writing.

Each student who participated in the assessment was given a brochure to keep that included suggestions for planning and reviewing writing. Although the assessment time was limited, a planning page was given for each prompt.

OBJECTIVE 5:

Students should display effective choices in the organization of their writing. They should include detail to illustrate and elaborate their ideas, and use appropriate conventions of written English.

The scoring guides used to evaluate students' writing focus on students' abilities to organize their writing, develop their writing with details, and use the conventions of written English to present first-draft writing that communicates clearly.

OBJECTIVE 6:

Students should value writing as a communicative activity.

The writing assessment included "background" questions, given to all participating students, which asked students whether they like to write. It also asked students about their writing practices at school and at home.

Writing Scale Score and Achievement Level Results

Results for the nation

- Average scores for the nation were set at 150 on a scale of 0 to 300 for all grades assessed (4, 8, and 12). This average can be used as a basis for comparison for states and population subgroups.
- At grades 4, 8, and 12, the percentages of students performing at or above the *Basic* level of writing achievement were 84, 84, and 78 percent, respectively; the percentages who performed at or above the *Proficient* level were 23, 27, and 22 percent respectively. One percent of students each at grades 4, 8, and 12 performed at the highest achievement level, *Advanced*.

Results for the states and other jurisdictions

- Of the 39 states and other jurisdictions that participated in the 1998 state-by-state writing assessment at grade 8 and that met the participation guidelines, the following had scale scores above the national average: Colorado, Connecticut, the Department of Defense domestic schools, the Department of Defense overseas schools, Maine, Massachusetts, Oklahoma, Texas, Virginia, and Wisconsin. The same group of states, with the exception of Colorado, Oklahoma, and Virginia, were also above the national average in terms of percentages of students at or above the *Proficient* achievement level.

Writing Results for Student Subgroups

Gender

- At all three grades in 1998, female students had higher average writing scale scores than their male peers. In addition, the percentage of females at or above the *Basic* and *Proficient* achievement levels, and at the *Advanced* level, exceeded that of males.

Race/Ethnicity

- At grade 4, the average writing scale scores for Asian/Pacific Islander students were higher than those for White, Black, Hispanic, and American Indian students. Also at grade 4, White students had higher average writing scale scores than Black, Hispanic, and American Indian students. At grades 8 and 12, the average writing scale scores for Asian/Pacific Islander and White students were similar and were higher than those for Black, Hispanic, and American Indian students.

Parents' level of education

- Students in grades 4, 8, and 12 were asked to indicate their parents' highest level of education. Consistent with past NAEP assessments, in 1998 students who reported higher levels of parental education tended to have higher average writing scale scores.

Region of the country

- The 1998 results by region indicated that fourth and eighth graders in the Northeast and Central regions outperformed their counterparts in the Southeast and West. Among twelfth graders, students in the Southeast had lower average writing scale scores than did students in each of the other three regions.

Type of location

- In 1998, fourth and eighth graders in rural/small town schools and in urban fringe/large town schools had higher average writing scale scores than their counterparts in central city schools. Eighth and twelfth graders in urban fringe/large town schools had higher average writing scale scores than their counterparts in rural/small town schools. Twelfth graders in central city schools had average writing scale scores that were similar to the scores of their counterparts in urban fringe/large town schools and in rural/small town schools.

Free/Reduced-Price School Lunch Program

- The NAEP 1998 writing assessment collected information on student eligibility for the federally funded Free/Reduced-Price School Lunch Program, which provides children near or below the poverty line with nourishing meals. At all three grades, students who were eligible for the Free/Reduced-Price School Lunch Program had lower average writing scale scores than students who were not eligible for the program.

Type of school

- At all three grades, students attending nonpublic schools had higher average writing scale scores than their counterparts attending public schools. This result is consistent with the findings of past NAEP assessments.

School and Home Factors Related to Writing Performance

Teachers talking with students about their writing

- At all three grades, over 80 percent of students reported that their teachers talked with them about their writing at least sometimes. At all three grades assessed, students who reported that their teachers either always or sometimes talked with them about their writing had higher average writing scale scores than those who reported that their teachers never did so.

Saving student work in a folder or portfolio

- Eighty-one percent of fourth graders, 79 percent of eighth graders, and 75 percent of twelfth graders reported that they or their teachers saved their written work in a folder or portfolio. Students who reported that they or their teachers saved their writing in a folder or portfolio had higher average writing scale scores than those who reported they did not save their work in a folder or portfolio.

Computer use

- At all three grades, over one-third of students used computers for writing drafts or final versions of stories or reports at least once a week. At the fourth grade, 35 percent of students used computers for writing drafts or final versions of stories or reports once or twice a month. At grades 8 and 12, 39 and 42 percent of students, respectively, used computers for writing drafts or final versions of stories or reports once or twice a month.
- Fourth-grade students who reported using computers for writing drafts or final versions of stories or reports once or twice a month had higher average writing scale scores than those who reported never or hardly ever using computers for this purpose and those who used computers for this purpose at least once a week. At grade 8, students who used computers for this purpose once or twice a month had higher scores than those who did so at least once a week. At grades 8 and 12, students who reported using computers for writing drafts or final versions of stories or reports at least once a week or once or twice a month had higher average writing scale scores than those who reported never or hardly ever using computers for this purpose.

Writing drafts of a paper

- Over 80 percent of fourth-, eighth-, and twelfth-grade students reported that their teachers asked them to write more than one draft of a paper at least sometimes. At grades 8 and 12, students whose teachers always asked them to write more than one draft of a paper had higher average writing scale scores than did their peers whose teachers sometimes or never asked them to do so. At grade 4, there was no relationship between students' reports of writing more than one draft and student performance.

Planning writing on the assessment and in class

- On the assessment, students were provided a space to plan their writing in any written form, as well as a brochure with suggestions about how to do so. Most students in the assessment were given a test booklet with two 25-minute writing prompts. At the fourth grade, 47 percent of students planned for at least one of the two prompts in their test booklets, as did 66 percent of eighth graders and 67 percent of twelfth graders. At all three grades, students who did visible planning for both writing prompts had higher average writing scale scores than students who did visible planning for one prompt or neither prompt.

- Students at grades 8 and 12 reported on how often their teachers asked them to plan their writing. Eighty-six percent of eighth graders and 84 percent of twelfth graders reported that their teachers asked them to plan their writing at least once or twice a month. At both grades, students who reported that their teachers asked them to plan their writing at least once a week, or once or twice a month, had higher average writing scale scores than students who reported that their teachers never or hardly ever asked them to plan their writing.

Home Factors

Types of reading materials in the home

- Students were asked about the presence of four types of reading materials in the home: a newspaper, an encyclopedia, at least 25 books, and magazines. Thirty-eight percent of fourth graders, 51 percent of eighth graders, and 53 percent of twelfth graders reported having all four types of reading materials in the home. At all three grades, the more of these four types of reading materials were reported to be in the home, the higher the average writing scale scores. This result is consistent with the results of past NAEP assessments in a variety of subject areas.

Discussing studies at home

- Students at all three grades were asked how often they discuss things they have studied in school with someone at home. Seventy-six percent of fourth graders, 69 percent of eighth graders, and 67 percent of twelfth graders reported discussing what they have studied in school with someone at home at least once a week. At all three grades, the more frequently students discussed their studies with someone at home, the better their average writing scale scores. Again, this result is consistent with those of earlier NAEP assessments in many subjects.

This Report

This report comprises six chapters, each focusing on different results of the NAEP 1998 writing assessment. The Introduction frames the results by describing the objectives of the assessment and the kinds of questions it contained. Chapter 1 presents national results, including achievement level definitions and results, and exemplars of student writing from the assessment at each of the three achievement levels: *Basic*, *Proficient*, and *Advanced*. This is the first time NAEP has set achievement levels for writing.

Chapters 2 and 3 present results for regions of the country and for subgroups of students (for example, male and female students), by average scale scores and achievement levels, respectively. Chapter 4 provides information about some instructional practices. In that chapter, students' answers to such questions as "how often does your teacher talk to you about your writing" are reported, along with student performance data.

Chapter 5 presents results of the state-by-state assessment done at grade 8, which was the first NAEP state-by-state assessment in writing. That chapter also reports results by subgroups of the population in each participating state or jurisdiction. This information is supplemented by four appendices: Appendix C presents the percentage of students in each subgroup by state or jurisdiction, while Appendix D presents other contextual information, such as expenditures on education, from non-NAEP sources such as the census. Appendix E provides more detailed achievement level results for subgroups of students, and Appendix F presents results for students in nonpublic schools.

Chapter 6 explores in greater depth how student writing on the assessment was evaluated. It shows the scoring guides that were used and reports on student performance in narrative, informative, and persuasive writing. Chapter 6 also provides additional samples of student writing. The student samples and scoring guides may prove useful especially to teachers by giving examples of students' writing for the NAEP writing assessment and explanations of how that writing was evaluated.

The remaining appendices are technical ones: Appendix A provides information about procedures for the administration and evaluation of the assessment, as well as about how subgroups (such as race/ethnicity) were defined. Appendix B provides standard errors for tables included in the body of the report.

INTRODUCTION

As technological developments usher in the twenty-first century, writing to create and to communicate remains essential to our lives in the "information age." The ability to write clearly and effectively is particularly valuable in an era of increasing specialization.

By writing about science, history, and other subjects, as well as about literature, students deepen their knowledge of those subjects and learn how to communicate that knowledge effectively. Writing itself is an act of discovery.

Many writing instructors for the past several decades have emphasized that writing is a recursive process, requiring continual rethinking and revision. In today's writing classrooms, one can observe students learning how to plan, critique, and revise their own writing, as well as learning how to critique that of others. By reflecting on their writing, students become better writers, able to express themselves more clearly and to shape their communications to the needs of specific audiences.

The ability to write is important in a variety of situations. Writing has many purposes: for example, to inform people about problems or events, to persuade people to adopt positions on issues, and to entertain, educate, and inspire people through stories and other narratives. Writing is an effective way for individuals to express their ideas and opinions to friends, potential employers, government officials, or other groups of people. The ability to write is crucial for an active and engaged citizenry.

Overview of the 1998 National Assessment of Educational Progress (NAEP)

This report is written for a variety of audiences — policymakers, parents, teachers, and concerned citizens. The results reported here can provide important information for them to consider in discussing and making decisions about the progress of our nation's students in writing.

The NAEP is the only nationally representative and continuing assessment of what students in the United States know and can do in various subjects. NAEP is authorized by Congress and directed by the National Center for Education Statistics (NCES) of the U.S. Department of Education. The National Assessment Governing Board (NAGB), an independent, bipartisan body, provides policy direction for NAEP.

Since being authorized by Congress in 1969, NAEP's mission has been to collect, analyze, and present reliable information about what American students know and can do. Both public and private school students in grades 4, 8, and 12 are sampled and assessed on a regular basis in a range of academic subject areas.

All NAEP assessments are based on a content framework developed through a national consensus process that involves teachers, curriculum experts, parents, and members of the general public. The *NAEP Writing Framework*, adopted by the National Assessment Governing Board (NAGB), provided objectives and guidelines for the writing assessment.[1]

The 1998 writing assessment was administered to national samples of fourth, eighth, and twelfth graders. It was also administered to eighth graders in jurisdictions[2] that participated in the state-by-state assessment. Therefore, this report provides state-by-state results on the writing achievement of eighth graders, as well as national results at all three grades. Across all three grades, nearly 160,000 students were assessed in the national and state samples.

This report describes the results of the NAEP 1998 national and state assessments in writing. In the NAEP writing assessment, students were evaluated on their responses to writing topics ("prompts"). Most students in the assessment were asked to respond to two 25-minute writing prompts. Some students at grades 8 and 12 in the national sample were asked to respond to one 50-minute prompt.

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[1] National Assessment Governing Board. *Writing framework and specifications for the 1998 National Assessment of Educational Progress.* Washington, DC: Author.

[2] The term *jurisdictions* refers to the states, territories, and Department of Defense Education Activity Domestic (DDESS) and Overseas (DoDDS) schools that participated in the state-by-state assessment.

Framework for the 1998 Assessment[3]

The *NAEP Writing Framework* guided the development of the NAEP 1998 writing assessment. The framework provides overarching objectives for the assessment, as well as directions for the kinds of prompts to include on the assessment. The result of a national consensus effort, the *NAEP Writing Framework* represents the ideas of hundreds of individuals involved and interested in writing education. This consensus effort was managed by the Center for Research on Evaluation, Standards, and Student Testing (CRESST), under the direction of the National Assessment Governing Board (NAGB). The framework's objectives are the same as those for the 1992 assessment. For 1998, American College Testing (ACT), under contract to NAGB, added detailed guidelines for the kinds of writing prompts to include in the assessment. These guidelines called for an increase in the number of NAEP writing prompts, provided detailed directions for including a wide variety of prompts, and provided new directions for the scoring guides used to evaluate student responses. Because almost all of the prompts in the 1998 assessment were new and because all responses were evaluated using new scoring guides, student performance on this assessment cannot be compared to student performance on the 1992 writing assessment.[4]

The *NAEP Writing Framework*, informed by current research and theory, emphasizes that writing addresses a variety of purposes and audiences. For the assessment, the framework describes three purposes for writing: **narrative** (telling a story), **informative** (informing the reader), and **persuasive** (persuading the reader). The selection of these three purposes for writing was based on their use in instruction.[5] The framework specified the three purposes for writing to ensure that the NAEP writing assessment covered different kinds of writing. The three purposes, which were assessed at all three grades (4, 8, and 12), are described in Figure i.1.

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[3] National Assessment Governing Board. *Writing framework and specifications for the 1998 National Assessment of Educational Progress.* Washington, DC: Author.

[4] For information about trends in writing performance based on a different assessment instrument, see Campbell, J.R., Voelkl, K.E., & Donahue, P.L. (1997). *NAEP 1996 trends in academic progress.* Washington, DC: National Center for Education Statistics.

[5] On the importance of specifying purpose in writing instruction, see Oliver, E. (1989). Effects of assignment on writing quality at four grade levels. *English Quarterly, 21*(4), 224–32.

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Figure i.1

Purposes for writing

Narrative Writing	Narrative writing encourages writers to incorporate their imagination and creativity in the production of stories or personal essays. At its best, narrative writing fosters imagination, creativity, and speculation by allowing writers to express their thoughts and emotions, and offers an opportunity for writers to analyze and understand their actions and those of others. The narrative prompts included in the NAEP 1998 writing assessment asked students to write many kinds of stories (most fiction, some nonfiction). Some of the prompts asked students to write in response to photographs, drawings, cartoons, poems, or stories (provided with the assessment).
Informative Writing	In informative writing, the writer provides the reader with information. Informative writing may involve reporting on events or experiences or analyzing concepts and relationships. When used as a means of exploration, informative writing helps both the writer and the reader to learn new ideas and to reexamine old conclusions. Informative prompts in the NAEP 1998 writing assessment asked students to write on specified subjects using many kinds of information, such as newspaper articles, charts, photographs, or reported dialogues (provided with the assessment), as well as their own knowledge. Students could write in a variety of formats, such as reports, newpaper articles, and letters.
Persuasive Writing	Persuasive writing seeks to persuade the reader to take action or to bring about change. This type of writing involves a clear awareness of what arguments might most affect the audience being addressed. Writing persuasively also requires the use of such skills as analysis, inference, synthesis, and evaluation. Persuasive prompts in the NAEP 1998 writing assessment asked students to write letters to the editor or to friends, to refute arguments, or to take sides in a debate.

As the framework notes, these three purposes for writing are not entirely distinct. For example, persuasive letters may incorporate factual information, and the writer of an informative essay may tell a story to illustrate a point. The professional raters who evaluated the student responses were instructed not to penalize such diverse forms of presentation (which students who received high ratings sometimes used).

Table i.1 illustrates the percentage of the assessment devoted to each writing purpose. Those percentages vary by grade level to match both different levels of development and different emphases in instruction. In the assessment, narrative writing was emphasized at grade 4; the three purposes for writing received approximately equal emphasis at grade 8; and the emphasis was on persuasive writing at grade 12. The table shows the actual distribution of prompts in the assessment, which matched the target percentages set by the framework.

Table i.1

Distribution of writing prompts by purpose for writing in the NAEP 1998 writing assessment

Purpose for writing	Percentage of prompts	Number of prompts
Grade 4		
Narrative	40	8
Informative	35	7
Persuasive	25	5
Grade 8		
Narrative	35	7
Informative	35	7
Persuasive	30	6
Grade 12		
Narrative	25	5
Informative	35	7
Persuasive	40	8

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

In addition to specifying the amount of time to be devoted to each writing purpose on the assessment, the framework specifies that, across the assessment, students should:

- write on a variety of tasks and for many different audiences;
- write from a variety of stimulus materials; and
- write within different time constraints.

Writers shape their works not only to express their own views and knowledge, but also to address the intended reader by varying such aspects of their writing as the formality of the language. Therefore the assessment used many prompts in which the audience was specified. Some students were asked to write, for example, a letter to a friend or to a school board. Students also had the opportunity to write in a variety of forms, such as essays, letters, reports, and stories.

Research has shown that providing students with a variety of stimuli (visual or written materials to inspire writing) is useful in writing instruction.[6] Visual materials may aid those who are particularly inspired by images; others may find it easiest to write in response to literature or to factual or historical material. Therefore some prompts in the assessment asked students to write in response to a photograph, cartoon, or drawing. Other students wrote in response to prompts that incorporated newspaper articles or dialogues about issues of interest to students. Still other students were asked to respond to letters they received as part of writing prompts in the assessment. Finally, some prompts incorporated literary works such as poems and stories.

To address the guideline that students should write within different time constraints, some students at grades 8 and 12 were asked to respond to a single 50-minute prompt. The rest of the students were asked to respond to two different prompts, timed at 25 minutes each. Because the 50-minute prompts at grades 8 and 12 were not included on the NAEP writing scale, they are not presented in this report. Information on sample 50-minute prompts is available on the NAEP Web site (*http://nces.ed.gov/nationsreportcard*) for further research.

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[6] Berthoff, A.E. (1990). *The sense of learning.* Portsmouth, NH: Boynton.

Hillocks, G. (1986). *Research on written composition: New directions for teaching.* Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills; National Conference on Research in Teaching.

See also the National Council of Teachers of English (NCTE) standards, which emphasize the ability to interpret visual as well as written texts: National Council of Teachers of English and International Reading Association. (1996). *Standards for the English Language Arts.* Urbana, Illinois: Author.

The writing framework further specifies that students should:

- generate, draft, evaluate, revise, and edit ideas and forms of expression in their writing; and
- display effective choices in the organization of their writing. Students should include detail to illustrate and elaborate their ideas and should use appropriate conventions of written English.

In the assessment, students had a limited time to write. While the limits of a timed assessment prevented students from engaging in the kind of drafting and revision that can be done in a regular classroom environment, each prompt in the assessment included a page for planning to encourage students to plan their writing. In addition, every student received a brief brochure with suggestions for planning and revising their writing. The three different versions of the brochure for grades 4, 8, and 12 are reprinted in Chapter 6. The elements of writing valued in the framework — elaboration and detail, organization, and mastery of the conventions of written English — are central components of the guides for scoring student responses, which are also presented in Chapter 6.

To further address the framework's goal that students "generate, draft, evaluate, revise, and edit" their ideas in writing, NAEP performed a special study of classroom writing in 1998. In 100 classrooms each at grades 4 and 8, students submitted their two best pieces of writing, and their teachers described their approaches to teaching writing in extensive interviews. Results of that study will be published in a forthcoming report.

Finally, the framework states as an objective that students should:

- value writing as a communicative activity.

Background questions on the assessment asked students about whether they saw themselves as good writers and what their writing practices were at home and at school.

The Writing Assessment Instruments

As the discussion of the writing framework above indicates, the NAEP writing assessment reflects current research and perspectives on writing and its measurement. To ensure this currency, the development process for the assessment instruments involved a series of reviews by writing and measurement experts, state officials, teachers, and writing researchers. All components of the assessment were evaluated for curricular relevance, developmental appropriateness, fairness concerns, and adherence to the framework and test specifications. Over 100 prompts were field tested; from those, the 66 that best met the criteria above were chosen to be used in the 1998 assessment. Twenty 25-minute prompts were given at each grade. In addition, three 50-minute prompts (one narrative, one informative, and one persuasive) were given at both grades 8 and 12.

All students at grade 4, and most students at grades 8 and 12, received test booklets with two prompts. Students were given 25 minutes to respond to each of the two prompts. Some students at grades 8 and 12 were given one 50-minute prompt instead of two 25-minute prompts. The 50-minute prompts were not given at the state level. All students had a total of 50 minutes to write. Although a few prompts were given at more than one grade level, the scoring guidelines were different at each grade level, and so no cross-grade comparisons are made in this report.

As part of the assessment, students answered general background questions that asked them to identify their race/ethnicity, parents' highest level of education, and other factors such as how often someone at home talked to them about their studies. They also responded to questions about their writing practices in school. These background questions were given in separately timed sections. They are discussed in Chapter 4, in the context of student achievement on the assessment.

Description of School and Student Samples

The NAEP 1998 writing assessment was conducted nationally at grades 4, 8, and 12 and on a state-by-state basis at grade 8. For both the national and state-by-state assessments, representative samples of public and nonpublic school students who were selected through stratified random sampling procedures were assessed.

Thus, the national and jurisdictional results presented in this report are based on representative samples of students. Each selected school that participated in the assessment and each student assessed represent a portion of the population of interest. As a result, after adjustment for student and school nonresponses, the findings presented in this report pertain to all fourth, eighth, and twelfth graders in the nation and regions and to all eighth graders in participating jurisdictions that met participation guidelines.

In an effort to expand inclusion in NAEP, the 1998 writing assessment, for the first time, offered testing accommodations to students with disabilities and to students with limited proficiency in English. Some of the accommodations provided were extended time, large-print booklets, or the use of a bilingual dictionary. A total of 4 percent of fourth-grade students, 3 percent of eighth-grade students, and 1 percent of twelfth-grade students were assessed with accommodations. For more information on accommodations, see Appendix A, which also dicusses sample sizes and participation rates for the national and state-by-state assessments.

Evaluating Students' Writing on the NAEP Assessment

All student responses in the NAEP 1998 writing assessment were evaluated according to criteria set forth in scoring guides that described six levels of performance. Scoring guides were developed for each grade and each purpose for writing (narrative, informative, and persuasive). Thus, for example, the same scoring guide was used for all grade 8 narrative prompts. In addition, specific notes for raters on how responses to each prompt fit the scoring guide were developed. Those notes described different ways in which students approached the prompt, as well as the kinds of responses to that prompt that students tended to write at different levels on the scoring guide.

The scoring guides (presented in Chapter 6) reflect higher expectations for students at higher grade levels. Following the framework, the scoring guides emphasize not only the student's ability to develop and elaborate ideas, but also the student's ability to organize his or her thoughts and to write grammatically correct prose. The criteria for measuring command of the mechanics of written English differed by grade, but were the same across the three purposes for writing (narrative, informative, and persuasive) within each grade. Responses to the 50-minute writing prompts were rated by using the same scoring guides. For those prompts, responses tended to be longer for each level in the scoring guide.

To determine how students plan what they write, NAEP provided a page for students to engage in planning activities. Students' written planning was classified into six categories: rough drafts, outlines, lists, diagrams, pictures, and multiple forms (which incorporated two or more of the listed categories). Since the timed assessment context provides limited opportunity to plan and revise one's work, however, students' responses to assessment tasks were viewed as first-draft writing and evaluated accordingly. The scoring guides required raters to consider each response's elaboration of ideas, organization, and control of mechanics to judge the overall quality of writing in the response. A wide variety of student approaches to each prompt was accepted.

Reporting the Writing Assessment Results

Because the NAEP assessment selects a representative sample of students in order to survey the nation, and because the broad field of writing is addressed through many prompts, each student participating cannot be expected to respond to all of the prompts in the assessment. That would impose an unreasonable burden on students and their schools. Thus, each student was administered a portion of the assessment, and data were combined across students to report on the achievement of fourth, eighth, and twelfth graders and on the achievement of subgroups of students (e.g., subgroups defined by gender or level of parental education).

Student responses to the writing prompts were analyzed to determine the percentage of students achieving each of the ratings (1 through 6 on a 6-level scoring guide) for those prompts. The twenty 25-minute prompts in the writing assessment at each grade were not equally difficult for students, nor does writing in response to any particular prompt fully reflect writing performance in general. Item response theory (IRT) methods were used to measure the general writing skills that underlie performance across all the prompts, resulting in an overall scale for each of the grades — 4, 8, and 12. Average scale scores presented in this report are based on this overall scale. Note that the 50-minute prompts were not included on the scale.

For each grade, the range of the scale was 0 to 300, and the national average was set at 150. While the scale-score ranges are identical across grades, the scale was derived independently for each grade. Since, as the framework for the writing assessment specifies, separate scoring guides were used for each grade, performance for each grade had to be scaled separately. Therefore, average scale scores cannot be compared across grades. For example, equal scale scores on the grade 4 and grade 8 scales do not imply equal levels of writing achievement. However, this scale does make it possible to compare writing scale scores for the nation for subgroups of students at a particular grade. It also allows for comparisons across the jurisdictions participating in the state-by-state assessment. (Additional details of the scaling procedures can be found in Appendix A.)

The average scale score provides information on what students *know and can do*. In addition to the NAEP writing scale, results are also reported by using the writing achievement levels as authorized by the NAEP legislation and adopted by the National Assessment Governing Board (NAGB). The achievement levels are performance standards based on the collective judgments of experts about what students *should know and be able to do*. The levels were developed by a broadly representative panel that included teachers, education specialists, and members of the general public. For each grade tested, NAGB has adopted three achievement levels: *Basic*, *Proficient*, and *Advanced*. For reporting purposes, the achievement level cut scores for each grade are placed on the NAEP writing scale, resulting in four ranges: below *Basic*, *Basic*, *Proficient*, and *Advanced*.

The Setting of Achievement Levels

The 1988 NAEP legislation that created the National Assessment Governing Board directed the Board to identify "appropriate achievement goals . . . for each subject area" that NAEP measures.[7] The 1994 NAEP reauthorization reaffirmed many of the Board's statutory responsibilities, including "developing appropriate student performance standards for each age and grade in each subject area to be tested under the National Assessment."[8] In order to follow this directive and achieve the mandate of the 1988 statute "to improve the form and use of NAEP results," the Board undertook the development of student performance standards (called "achievement levels"). Since 1990, the Board has adopted achievement levels for mathematics, reading, U.S. history, world geography, and science, and, for the first time for the 1998 assessment, writing. It has also developed achievement levels for the 1998 civics assessment.

The Board defined three levels for each grade: *Basic*, *Proficient*, and *Advanced*. The *Basic* level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade. The *Proficient* level represents solid academic performance. Students reaching this level demonstrate competency over challenging subject matter. The *Advanced* level signifies superior performance at a given grade. For each grade, the levels are cumulative;

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[7] Public Law 100–297. (1988). National Assessment of Educational Progress Improvement Act (20 USC 1221). Washington, DC.

[8] Public Law 103–382. (1994). Improving America's Schools Act (20 USC 9010). Washington, DC.

that is, abilities achieved at the *Proficient* level presume mastery of abilities associated with the *Basic* level, and attainment of the *Advanced* level presumes mastery of both the *Basic* and *Proficient* levels. Figure i.2 presents the policy definitions of the achievement levels that apply across grades and subject areas. (Specific descriptions of writing achievement for the levels at each grade are presented in Chapter 1.) Adopting three levels of achievement for each grade signals the importance of looking at more than one standard of performance. The Board believes, however, that all students should reach the *Proficient* level; the *Basic* level is not the desired goal, but rather represents partial mastery that is a step toward *Proficient*.

Figure i.2

Achievement level policy definitions

Basic	This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
Proficient	This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
Advanced	This level signifies superior performance.

The achievement levels in this report were adopted by the Board based on a standard-setting process designed and conducted under a contract with American College Testing (ACT). To develop these levels, ACT convened a cross section of educators and interested citizens from across the nation and asked them to judge what students should know and be able to do relative to the view of writing reflected in the NAEP assessment framework for writing. This achievement-level-setting process was reviewed by an array of individuals including policymakers, representatives of political organizations, teachers, parents, and other members of the general public. Prior to adopting these levels of student achievement, NAGB engaged a large number of persons to comment on the recommended levels and to review the results.

The results of the achievement-level-setting process, after NAGB approval, are a set of achievement level descriptions and a set of achievement level cut points on the 300-point NAEP scale for writing, as well as a set of exemplars of student performance at each achievement level. The cut points are the scores that define the boundaries between below *Basic*, *Basic*, *Proficient*, and *Advanced* performance at grades 4, 8, and 12. For further details of the achievement-level-setting process, see the *NAEP 1998 Technical Report*.

The Developmental Status of Achievement Levels

The 1994 NAEP reauthorization law requires that the achievement levels be used on a developmental basis until the Commissioner of Education Statistics determines that the achievement levels are "reasonable, valid, and informative to the public."[9] Until that determination is made, the law requires the Commissioner and the Board to make clear the developmental status of the achievement levels in all NAEP reports.

In 1993, the first of several congressionally mandated evaluations of the achievement-level-setting process concluded that the procedures used to set the achievement levels were flawed and that the percentage of students at or above any particular achievement level cut point may be underestimated.[10] Others have critiqued these evaluations, asserting that the weight of the empirical evidence does not support such conclusions.[11]

In response to the evaluations and critiques, NAGB conducted an additional study of the 1992 achievement levels in reading before deciding to use those levels for reporting 1994 NAEP results.[12] When reviewing the findings of this study, the National Academy of Education (NAE) Panel expressed concern about what it saw as a "confirmatory bias" in the study and about the inability of this study to "address the panel's perception that the levels had been set too high."[13]

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[9] The Improving America's Schools Act of 1994 (20 USC 9010) requires that the Commissioner base his or her determination on a congressionally mandated evaluation by one or more nationally recognized evaluation organizations, such as the National Academy of Education (NAE) or the National Academy of Sciences (NAS).

[10] United States General Accounting Office. (1993). *Education achievement standards: NAGB's approach yields misleading interpretations.* U.S. General Accounting Office Report to Congressional Requestors. Washington, DC: Author.

National Academy of Education. (1993). *Setting performance standards for achievement: A report of the National Academy of Education Panel on the evaluations of the NAEP Trial State Assessment: An evaluation of the 1992 achievement levels.* Stanford, CA: Author.

[11] Cizek, G. (1993). *Reactions to National Academy of Education report.* Washington, DC: National Assessment Governing Board.

Kane, M. (1993). *Comments on the NAEP evaluation of the NAGB achievement levels.* Washington, DC: National Assessment Governing Board.

[12] American College Testing. (1995). *NAEP reading revisited: An evaluation of the 1992 achievement level descriptions.* Washington, DC: National Assessment Governing Board.

[13] National Academy of Education. (1996). Reading achievement levels. In *Quality and utility: The 1994 Trial State Assessment in reading. The fourth report of the National Academy of Education Panel on the evaluation of the NAEP Trial State Assessment.* Stanford, CA: Author.

In 1997, the NAE Panel summarized its concerns with interpreting NAEP results based on the achievement levels as follows:

> *First, the potential instability of the levels may interfere with the accurate portrayal of trends. Second, the perception that few American students are attaining the higher standards we have set for them may deflect attention to the wrong aspects of education reform. The public has indicated its interest in benchmarking against international standards, yet it is noteworthy that when American students performed very well on a 1991 international reading assessment, these results were discounted because they were contradicted by poor performance against the possibly flawed NAEP reading achievement levels in the following year.*[14]

The NAE Panel report recommended "that the current achievement levels be abandoned by the end of the century and replaced by new standards . . . ." The National Center for Education Statistics and the National Assessment Governing Board have sought and continue to seek new and better ways to set performance standards on NAEP. For example, NCES and NAGB jointly sponsored a national conference on standard setting in large-scale assessments, which explored many issues related to standard setting.[15] Although new directions were presented and discussed, a proven alternative to the current process has not yet been identified. The Acting Commissioner of Education Statistics and NAGB continue to call on the research community to assist in finding ways to improve standard setting for reporting NAEP results.

The most recent congressionally mandated evaluation conducted by the National Academy of Sciences (NAS) relied on prior studies of achievement levels, rather than carrying out new evaluations, on the grounds that the process has not changed substantially since the initial problems were identified. Instead, the NAS Panel studied the development of the 1996 science achievement levels. The NAS Panel basically concurred with earlier congressionally mandated studies. The Panel concluded that "NAEP's current achievement-level-setting procedures remain fundamentally flawed. The judgment tasks are difficult and confusing; raters' judgments of different item types are internally inconsistent; appropriate validity evidence for the cut scores is lacking; and the process has produced unreasonable results."[16]

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[14] National Academy of Education. (1997). *Assessment in transition: Monitoring the nation's educational progress* (p. 99). Mountain View, CA: Author.

[15] National Assessment Governing Board and National Center for Education Statistics. (1995). *Proceedings of the Joint Conference on Standard Setting for Large-Scale Assessments of the National Assessment Governing Board (NAGB) and the National Center for Education Statistics (NCES).* Washington, DC: Government Printing Office.

[16] Pellegrino, J.W., Jones, L.R., and Mitchell, K.J. (Eds.). (1999). *Grading the nation's report card: Evaluating NAEP and transforming the assessment of educational progress.* Committee on the Evaluation of National Assessments of Educational Progress, Board on Testing and Assessment, Commission on Behavioral and Social Sciences and Education, National Research Council (p. 182). Washington, DC: National Academy Press.

The NAS Panel accepted the continuing use of achievement levels in reporting NAEP results only on a developmental basis, until such time as better procedures can be developed. Specifically, the NAS Panel concluded that ". . . tracking changes in the percentages of students performing at or above those cut scores (or in fact, any selected cut scores) can be of use in describing changes in student performance over time."[17] In a recent study, eleven testing experts who provided technical advice for the achievement-level setting process provided a critical response to the NAS report.[18]

The National Assessment Governing Board urges all who are concerned about student performance levels to recognize that the use of these achievement levels is a developing process and is subject to various interpretations. The Board and the Acting Commissioner of Education Statistics believe that the achievement levels are useful for reporting on trends in the educational achievement of students in the United States. In fact, achievement level results have been used in reports by the President of the United States, the Secretary of Education, state governors, legislators, and members of Congress. The National Education Goals Panel and government leaders in the nation and in more than 40 states use these results in their annual reports.

However, based on the congressionally mandated evaluations so far, the Acting Commissioner agrees with the recommendation of the National Academy of Sciences that caution needs to be exercised in the use of the current achievement levels. Therefore, the Acting Commissioner concludes that these achievement levels should continue to be considered developmental and should continue to be interpreted and used with caution.

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[17] *Ibid.*, page 176.

[18] Hambleton, R.K., Brennan, R.L., Brown, W., Dodd, B., Forsyth, R.A., Mehrens, W.A., Nellhaus, J., Reckase, M., Rindone, D., van der Linder, W.J., & Zwick, R. (1999). *A response to "Setting reasonable and useful performance standards" in the National Academy of Sciences' Grading the nation's report card.* Amherst, Massachusetts: University of Massachusetts, Laboratory of Psychometric and Evaluative Research.

Interpreting NAEP Results

The average scores and percentages presented in this report are estimates because they are based on samples rather than the entire population(s). As such, the results are subject to a measure of uncertainty, reflected in the standard errors of the estimates. The standard errors for the estimated scale scores and percentages provided throughout this report are provided in Appendix B.

The differences between scale scores and between percentages discussed in the following chapters take into account the standard errors associated with the estimates. The comparisons are based on statistical tests that consider both the magnitude of the difference between the group average scores or percentages and the standard errors of these statistics. Throughout this report, differences are defined as significant when they are significant from a statistical perspective. This means that observed differences are unlikely to be due to chance factors associated with sampling variability. The term "significant" is not intended to imply a judgment about the absolute magnitude or educational relevance of the differences. It is intended to identify statistically dependable population differences in order to help focus subsequent dialogue among policymakers, educators, and the public. All differences reported are significant at the .05 level, with appropriate adjustments for multiple comparisons.

Cautions in Interpretation

The reader is cautioned against using the NAEP results in this report to make simple causal inferences related to subgroup performance, to the effectiveness of public and nonpublic schools, or to state educational systems. A relationship that exists between performance and another variable does not reveal the underlying cause of that relationship, which may be influenced by a number of other variables. Differences in writing performance may reflect a range of socioeconomic and educational factors not discussed in this report or addressed by the NAEP assessment program. Similarly, differences between public and nonpublic schools may be better understood by considering such factors as composition of the student body and parental involvement. Finally, differences in writing performance among states and jurisdictions may reflect not only the effectiveness of education programs, but also the challenges posed by economic constraints and student demographic characteristics.

CHAPTER 1

Average Scale Score and Achievement Level Results for the Nation

Overview

This chapter presents the results of the National Assessment of Educational Progress (NAEP) 1998 writing assessment for the nation. Student performance is described in terms of average scores on the NAEP writing scale, which ranges from 0 to 300, and in terms of the percentages of students who attained each of the three writing achievement levels: *Basic*, *Proficient*, and *Advanced*. The chapter also includes samples of student writing on the assessment that were selected to exemplify performance within each achievement level range. Three exemplar papers representing the three achievement levels are presented for each grade. Additional sample student responses are provided in Chapter 6.

Explanation of Average Scale Score Results for the Nation

The NAEP writing assessment measured students' writing with a range of prompts at each grade. Item Response Theory (IRT) methods were used to produce a scale for each grade that summarizes the results from those prompts. The scale at each grade ranges from 0 to 300, with a national average of 150. Item Response Theory uses a set of statistical models to summarize student performance across a group of assessment questions requiring similar knowledge and skills. In the context of the writing assessment, IRT methods were used to create summary scales that relate students' performance on the writing prompts to their general writing skill as measured by the assessment.

The NAEP writing scales can be used to compare the performance of subgroups of students within a grade (for instance, eighth graders who reported different levels of parental education). The scales do not allow for comparisons of performance across grades. For example, comparisons between the average scale scores of fourth and eighth graders attending nonpublic schools would not be meaningful. Additional information about the scaling procedures used in the NAEP 1998 writing assessment can be found in Appendix A of this report and in the forthcoming *NAEP 1998 Technical Report*.

Table 1.1 presents the scale scores attained by students at several percentiles. It shows the writing scale scores for students at the 10th, 25th, 50th, 75th, and 90th percentiles at each grade. These data provide some indication of the range of student performance, from lower performance (10th percentile) to higher performance (90th percentile).

Table 1.1

Writing scale score percentiles for the nation: 1998

	Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Grade 4	150	105	126	151	174	195
Grade 8	150	104	127	151	175	194
Grade 12	150	104	126	150	174	195

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Achievement Level Results for the Nation

The results of student performance are reported using not only average scores on the NAEP writing scale, but also writing achievement levels as authorized by the NAEP legislation[1] and as adopted by the National Assessment Governing Board (NAGB). Viewing students' performance from this perspective provides some insight into the adequacy of students' knowledge and skills and the extent to which they achieved expected levels of performance.

In 1999, NAGB reviewed and adopted the recommended writing achievement levels, which were derived from the judgments of a broadly representative panel that included teachers, education specialists, and members of the general public. For each grade tested, the Board has adopted three achievement levels: *Basic*, *Proficient*, and *Advanced*. For reporting purposes, the writing achievement level cut scores for each grade are placed on the NAEP writing scale, resulting in four ranges: below *Basic*, *Basic*, *Proficient*, and *Advanced*. Figures 1.1–1.3 present the specific descriptions of writing achievement levels at each grade. In the description of each achievement level, the italicized portion presents a summary of the complete description of that level. Note also that, in these descriptions, the term "writing task" is equivalent to "writing prompt."

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[1] The Improving America's Schools Act of 1994 (20 USC 9010) requires that the National Assessment Governing Board develop "appropriate student performance levels" for reporting NAEP results.

Figure 1.1

THE NATION'S REPORT CARD naep

Writing achievement levels, grade 4

The following statements describe the kinds of things fourth-grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of "ideas for planning and reviewing" their writing for the assessment. Although the Writing NAEP cannot fully assess students' abilities to produce a polished piece of writing, the results do provide valuable information about students' abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

Basic (115)

Fourth-grade students performing at the Basic level should be able to produce a somewhat organized and detailed response within the time allowed that shows a general grasp of the writing task they have been assigned.

Fourth-grade students performing at the *Basic* level should be able to produce a somewhat organized response within the time allowed that shows a general grasp of the writing task they have been assigned. Their writing should include some supporting details. Its grammar, spelling, and capitalization should be accurate enough to communicate to a reader, although there may be mistakes that get in the way of meaning.

Proficient (176)

Fourth-grade students performing at the Proficient level should be able to produce an organized response within the time allowed that shows an understanding of the writing task they have been assigned. Their writing should include details that support and develop their main idea, and it should show that these students are aware of the audience they are expected to address.

Fourth-grade students performing at the *Proficient* level should be able to produce an organized response within the time allowed that shows an understanding of the writing task they have been assigned. Their writing should include details that support and develop the main idea of the piece, and its form, content, and language should show that these students are aware of the audience they are expected to address. The grammar, spelling, and capitalization in the work should be accurate enough to communicate to a reader; there may be some mistakes, but these should not get in the way of meaning.

Advanced (225)

Fourth-grade students performing at the Advanced level should be able to produce an effective, well developed response within the time allowed that shows a clear understanding of the writing task they have been assigned and the audience they are expected to address. Their writing should include details and be clearly organized, should use precise and varied language, and may show signs of analytical, evaluative, or creative thinking.

Fourth-grade students performing at the *Advanced* level should be able to produce an effective, well developed response within the time allowed that shows a clear understanding of the writing task they have been assigned. Their writing should be clearly organized, making use of techniques such as consistency in topic or theme, sequencing, and a clearly marked beginning and ending. It should make use of precise and varied language to speak to the audience the students are expected to address, and it should include details and elaboration that support and develop the main idea of the piece. Their writing may also show signs of analytical, evaluative, or creative thinking. The grammar, spelling, and capitalization in the work should be accurate enough to communicate clearly; mistakes should be so few and so minor that a reader can easily skim over them.

Figure 1.2

Writing achievement levels, grade 8

The following statements describe the kinds of things eighth grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of "ideas for planning and reviewing" their writing for the assessment. Although the Writing NAEP cannot fully assess students' abilities to produce a polished piece of writing, the results do provide valuable information about students' abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

***Basic* (114)**

Eighth-grade students performing at the Basic level should be able to produce an effective response within the time allowed that shows a general understanding of the writing task they have been assigned. Their writing should show that these students are aware of the audience they are expected to address, and it should include supporting details in an organized way.

Eighth-grade students performing at the *Basic* level should be able to produce an effective response within the time allowed that shows a general understanding of the writing task they have been assigned. Their writing should show that these students are aware of the audience they are expected to address, and it should include supporting details in an organized way. The grammar, spelling, punctuation, and capitalization in the work should be accurate enough to communicate to a reader, although there may be mistakes that get in the way of meaning.

***Proficient* (173)**

Eighth-grade students performing at the Proficient level should be able to produce a detailed and organized response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should include precise language and varied sentence structure, and it may show analytical, evaluative, or creative thinking.

Eighth-grade students performing at the *Proficient* level should be able to produce an effective response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should be organized, making use of techniques such as sequencing or a clearly marked beginning and ending, and it should make use of details and some elaboration to support and develop the main idea of the piece. Their writing should include precise language and some variety in sentence structure, and it may show analytical, evaluative, or creative thinking. The grammar, spelling, punctuation, and capitalization in the work should be accurate enough to communicate to a reader; there may be some errors, but these should not get in the way of meaning.

***Advanced* (224)**

Eighth-grade students performing at the Advanced level should be able to produce a fully developed response within the time allowed that shows a clear understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking and may make use of literary strategies to clarify a point. At the same time, the writing should be clearly organized, demonstrating precise word choice and varied sentence structure.

Eighth-grade students performing at the *Advanced* level should be able to produce an effective and fully developed response within the time allowed that shows a clear understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking, and should demonstrate precise word choice and varied sentence structure. Their work should include details and elaboration that support and develop the main idea of the piece, and it may make use of strategies such as analogies, illustrations, examples, anecdotes, or figurative language to clarify a point. At the same time, the writing should show that these students can keep their work clearly and consistently organized. Writing by eighth-grade students performing at the *Advanced* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate good control of these elements and may use them for stylistic effect in their work.

Figure 1.3

Writing achievement levels, grade 12

The following statements describe the kinds of things twelfth-grade students should be able to do in writing at each level of achievement. These statements should be interpreted with the constraints of the National Assessment of Educational Progress in mind. Student performances reported with respect to these descriptions are in response to two age-appropriate writing tasks completed within 25 minutes each. Students are not advised of the writing tasks in advance nor engaged in pre-writing instruction and preparation; however, they are given a set of "ideas for planning and reviewing" their writing for the assessment. Although the Writing NAEP cannot fully assess students' abilities to produce a polished piece of writing, the results do provide valuable information about students' abilities to generate writing in response to a variety of purposes, tasks, and audiences within a rather limited period of time.

***Basic* (122)**

Twelfth-grade students performing at the Basic level should be able to produce a well-organized response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking, and it should include details that support and develop the main idea of the piece.

Twelfth-grade students performing at the *Basic* level should be able to produce an effective response within the time allowed that shows an understanding of both the writing task they have been assigned and the audience they are expected to address. Their writing should show some analytical, evaluative, or creative thinking. It should include details that support and develop the central idea of the piece, and it should be clearly organized, making use of techniques such as consistency in topic or theme, sequencing, and a clear introduction and conclusion. The grammar, spelling, punctuation, and capitalization in these students' work should be accurate enough to communicate to a reader; there may be some errors, but these should not get in the way of meaning.

***Proficient* (178)**

Twelfth-grade students performing at the Proficient level should be able to produce an effectively organized and fully developed response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should include details that support and develop the main idea of the piece, and it should show that these students are able to use precise language and variety in sentence structure to engage the audience they are expected to address.

Twelfth-grade students performing at the *Proficient* level should be able to produce an effective and fully developed response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be organized effectively, and it should show that these students have a clear understanding of the writing task they have been assigned. It should be coherent, making use of techniques such as a consistent theme, sequencing, and a clear introduction and conclusion, and it should include details and elaboration that support and develop the main idea of the piece. The writing should show that these students are able to use precise language and variety in sentence structure to engage the audience they are expected to address. Writing by twelfth-grade students performing at the *Proficient* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate a command of these elements and may use them for stylistic effect in their work.

***Advanced* (230)**

Twelfth-grade students performing at the Advanced level should be able to produce a mature and sophisticated response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be detailed and fully developed, and it should show that these students are able to use literary strategies to develop their ideas. At the same time, the writing should be well crafted and coherent, and it should show that these students are able to engage the audience they are expected to address through rich and compelling language, precise word choice, and variety in sentence structure.

Twelfth-grade students performing at the *Advanced* level should be able to produce a mature and sophisticated response within the time allowed that uses analytical, evaluative, or creative thinking. Their writing should be fully developed, incorporating details and elaboration that support and extend the main idea of the piece. It should show that these students can use literary strategies – anecdotes and repetition, for example – to develop their ideas. At the same time, the writing should be well crafted, organized, and coherent, and it should incorporate techniques such as a consistency in topic or theme, sequencing, and a clear introduction and conclusion. It should show that these writers can engage the audience they are expected to address through rich and compelling language, precise word choice, and variety in sentence structure. Writing by twelfth-grade students performing at the *Advanced* level should contain few errors in grammar, spelling, punctuation, capitalization, and sentence structure. These writers should demonstrate a sophisticated command of these elements and may use them for stylistic effect in their work.

The NAEP legislation requires that achievement levels be "used on a developmental basis until the Commissioner of Education Statistics determines . . . that such levels are reasonable, valid, and informative to the public."[2] A discussion of the developmental status of achievement levels may be found in the Introduction.

The percentages of students at grades 4, 8, and 12 who performed at or above each of the achievement levels are presented in Table 1.2. In reading Table 1.2, it is necessary to keep in mind that the achievement levels are cumulative. That is, included among students who are considered to be at or above *Basic* are those who also have achieved the *Proficient* and *Advanced* levels of performance, and included among students who are considered to be at or above *Proficient* are those who have attained the *Advanced* level of performance. For example, Table 1.2 shows that the percentage of fourth grade students at or above *Basic* is 84 percent. The 84 percent includes not only students at the *Basic* level, but also those who performed at the *Proficient* and *Advanced* levels.

As shown in Table 1.2, 84 percent of fourth graders, 84 percent of eighth graders, and 78 percent of twelfth graders were at or above the *Basic* level in 1998. Performance at or above the *Proficient* level — the achievement level identified by NAGB as the level that all students should reach — was achieved by 23 percent of students at grade 4, 27 percent of students at grade 8, and 22 percent of students at grade 12. The highest level of performance, *Advanced*, was attained in 1998 by 1 percent of students at each of the three grades.

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[2] Public Law 103-382. (1994). Improving America's Schools Act (20 USC 9010). Washington, DC.

Table 1.2

Percentage of students at or above the writing achievement levels for the nation: 1998

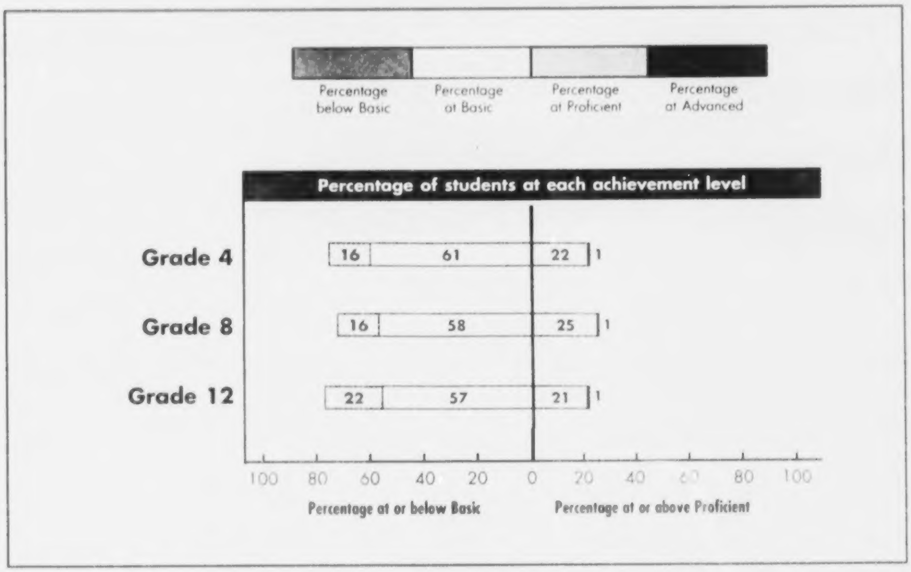
Nation			
Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4			
16	84	23	1
Grade 8			
16	84	27	1
Grade 12			
22	78	22	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 1.4 also shows achievement level results, but in terms of the percentage of students within each achievement level range. At all three grades, over half of the students were in the *Basic* achievement level range.

Figure 1.4

Percentage of students within each writing achievement level range for the nation: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Sample Writing Prompts and Student Responses

This section presents the nine prompts released to the public, along with student responses that exemplify the three achievement levels for each grade. Commentary on each exemplar response is also provided.

The tables in this section present, for each exemplar response, the percentages of students within each achievement level range (*Basic, Proficient,* and *Advanced*) who achieved the same rating on the prompt as the exemplar response or better. The overall percentages presented in these tables include students who were considered below *Basic,* as well as students in each of the achievement level ranges. The achievement level ranges are linked to their corresponding points on the NAEP scale. Because of the small number of students who attained the *Advanced* level, percentages for the scale score ranges corresponding to *Advanced* cannot be reliably reported for the three grades and thus are not presented.

These student responses were chosen by the teachers, other educators, professional writers, and members of the public who set the achievement levels. Sample papers were eligible for selection as exemplars if they met a statistical criterion — among the range of students in the achievement level, the average proportion achieving the given rating or better had to be at least 50 percent. The panelists selected from among the statistically eligible student papers those papers that served as appropriate illustrations of the achievement level descriptions. The achievement levels apply to the writing scale in general, not to individual prompts. Because some items are more difficult than others, a rating of "Uneven" in response to one prompt, for example, may be equivalent to a rating of "Sufficient" on another. As a result, a response rated "Uneven" may have been chosen as a *Basic* exemplar for one prompt, while a response rated "Sufficient" may have been chosen as a *Basic* exemplar for another prompt. The ratings on the six-level scoring guides are reprinted below for reference. The full scoring guides are presented in Chapter 6.

The achievement levels do not describe performance below the *Basic* level. Chapter 6 presents additional information about the evaluation of the full range of student responses. It includes, for one prompt at each grade, a sample student response for each of the six ratings on the scoring guide.

Scoring Guide Ratings

6 = Excellent
5 = Skillful
4 = Sufficient
3 = Uneven
2 = Insufficient
1 = Unsatisfactory

Fourth-Grade Prompt: *Favorite Object*

We all have favorite objects that we care about and would not want to give up.

Think of one object that is important or valuable to you. For example, it could be a book, a piece of clothing, a game, or any object you care about.

Write about your favorite object. Be sure to describe the object and explain why it is valuable or important to you.

Writing Purpose: Informative

Responses to this prompt were rated according to the grade 4 informative scoring guide.

In response to the "Favorite Object" prompt (an informative prompt at grade 4), fourth graders chose a variety of objects, some of which were actually people or pets or activities such as games rather than objects. All of the above kinds of responses were accepted. Some students told stories about their favorite objects, while others described their object's qualities. A similar prompt that was given at grade 12 is presented later in this chapter.

The sample that follows was judged to be an exemplar of performance at the *Basic* achievement level on this prompt. It is somewhat organized and provides some details about the student's dog, "max," the "black rockwaller." The student describes, for example, how Max behaves differently around people who know him than around those who do not. The student uses some good description of Max's response when someone he knows comes home: "as soon as you open come running out jump all over you and he would play with you." The student's meaning is generally clear, although some problems with grammar and sentence boundaries leave gaps which the reader has to fill in: "he is playfull if you know him if you don't do not go near bark, growl, run you over . . . ." This essay was rated "Uneven" (3 on the 6-point scoring guide).

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Sample Fourth-Grade *Basic* Response

My favorite object is my dog, my dogs name is max he is black rokwaller, he is playfull if you know him if you don't do not go near bark, growl, run you over, he will bite you, and he will bite on your shirt. Max will run with you are coming home he will schacth the door your opening it, as soon as you open come running out jump all over you and he would play with you. That's my story my most valulale object max.

Table 1.3 **Grade 4: *Favorite Object***

Overall Percentage "Uneven" (3) or better	Percentage "Uneven" (score of 3) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
90	94	100	***

* NAEP Writing scale range
*** Sample size is insufficient to permit a reliable estimate
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Fourth-Grade Prompt: *Castle*

One morning a child looks out the window and discovers that a huge castle has appeared overnight. The child rushes outside to the castle and hears strange sounds coming from it. Someone is living in the castle!

The castle door creaks open. The child goes in.

Write a story about who the child meets and what happens inside the castle.

Writing Purpose: Narrative

Responses to this prompt were rated according to the grade 4 narrative scoring guide.

The sample that follows was chosen as an exemplar of performance at the *Proficient* achievement level for this fourth-grade narrative prompt. The imagination of fourth graders was very much in evidence in responses to this prompt, "Castle," which tended to elicit fast-paced stories of fictional events. In the sample provided, the student provides a clear, organized response. He or she writes a clearly-constructed story with some illustrative details that make it more vivid, like that of the "purple, pink, red, blue, orange and yellow rainbow." Since raters were instructed not to penalize responses that lacked an ending, given the time constraints of the assessment, this response was not penalized for the lack of a conclusion to the plot. The student provides some good plot development and some suspense: "He looked around and saw that there must be someone living here." The student has good control of sentence boundaries and does not stray from the clear sequence of actions provided. This essay was rated "Sufficient" (4 on the 6-point scoring guide).

Sample Fourth-Grade *Proficient* Response

One day a 13 year old boy woke up and found beautiful castle with a purple pink, red, blue, orange and yellow rainbow. He decided to get up. Then he got dressed and went to see what was in the castle. He walked to the door and knocked nobody answered so he knocked again still no answer.

Then the boy went in. It was pretty dark inside not like the outside of the color. He looked around and saw that there must be someone living here. It very clean he could see that it was clean in the dark.

He went up stairs to a room and opened it and there he saw the ugly monster, and behind him was a pretty princess. He was in love. The princess was tide up.

Table 1.4 **Grade 4: *Castle***

Overall Percentage "Sufficient" (4) or better	Percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
55	50	96	***

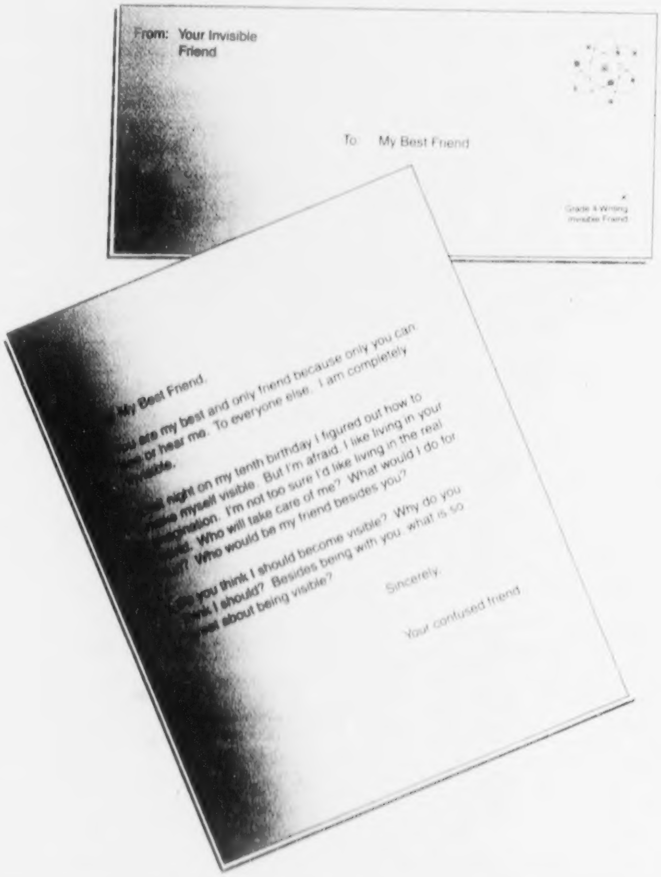
* NAEP writing scale range.
*** Sample size is insufficient to permit a reliable estimate.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Fourth-Grade Prompt: *Invisible Friend*

Open the envelope labeled **K** and take out the letter.

Pretend this letter is from an imaginary friend that you have had since kindergarten. Read the letter. Think about what you could say that would help your friend decide to become visible.

On the lined pages in your test booklet, write a letter to your imaginary friend. Convince your friend to become visible. In your letter, use details and examples.



From: Your Invisible Friend

To: My Best Friend

Grade 4 Writing
Invisible Friend

My Best Friend,

ou are my best and only friend because only you can ee or hear me. To everyone else, I am completely nvisible.

ast night on my tenth birthday I figured out how to ake myself visible. But I'm afraid. I like living in your magination. I'm not too sure I'd like living in the real orld. Who will take care of me? What would I do for un? Who would be my friend besides you?

o you think I should become visible? Why do you ink I should? Besides being with you, what is so eat about being visible?

Sincerely,

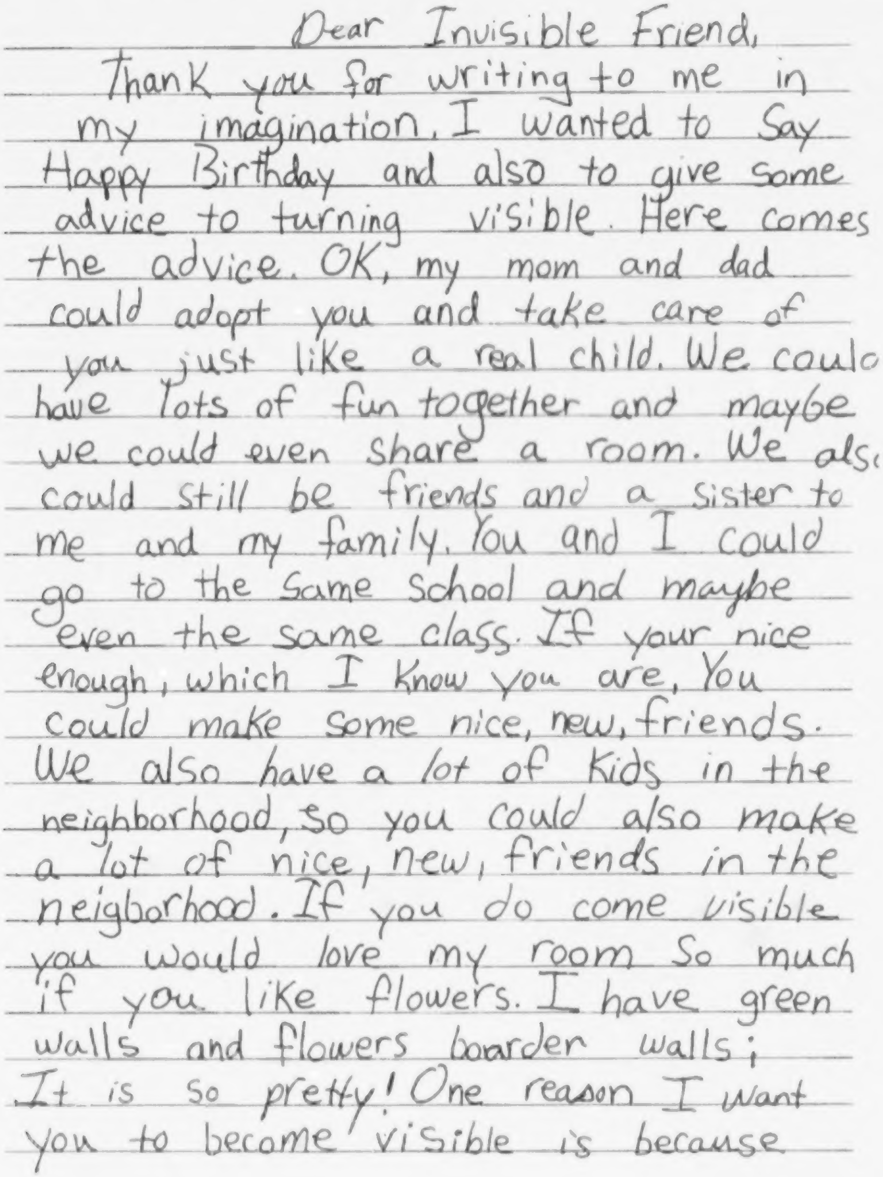
Your confused friend

Writing Purpose: Persuasive

Responses to this prompt were rated according to the grade 4 persuasive scoring guide.

The following sample was chosen as an exemplar of performance at the *Advanced* achievement level for this fourth-grade persuasive prompt, "Invisible Friend." The prompt asked students to respond to a letter from an imaginary invisible friend, providing reasons why that friend should become visible. This example contains detailed development of reasons why the invisible friend should become visible: "If you do come visible you would love my room so much if you like flowers. I have green walls and flower boarder walls; It is so pretty!" The student clearly writes to be persuasive and has a good sense of audience. The details covered here include a variety of activities, examples of people who would be friends with the invisible friend, and the description of the student's room where the invisible friend would stay. The response is well-structured, with a clear beginning and ending. The student has good control of sentence boundaries, using a variety of sentence structures, and uses rhetoric effectively to make points: "Something that is great about being visible is that all kids I know are so nice. I want you to become visible. Please do!" This response was rated "Skillful"(5 on the 6-point scoring guide).

Sample Fourth-Grade *Advanced* Response



Dear Invisible Friend,

Thank you for writing to me in my imagination. I wanted to Say Happy Birthday and also to give some advice to turning visible. Here comes the advice. OK, my mom and dad could adopt you and take care of you just like a real child. We could have lots of fun together and maybe we could even share a room. We als could still be friends and a sister to me and my family. You and I could go to the same school and maybe even the same class. If your nice enough, which I know you are, You could make some nice, new, friends. We also have a lot of Kids in the neighborhood, so you could also make a lot of nice, new, friends in the neighborhood. If you do come visible you would love my room So much if you like flowers. I have green walls and flowers boarder walls; It is so pretty! One reason I want you to become visible is because

Sample Fourth-Grade *Advanced* Response (continued)

you probaly are so beatiful with blue eyes and blond hair. Another reason to become visible because in all of the familys, espically mine; they love you and Kiss you and hug you to death. Something that is great about being visible is that all Kids I Know are so nice. I want you to become visible. Please do!

Sincerely,
Your best friend

Table 1.5 **Grade 4: *Invisible Friend***

Overall Percentage "Skillful" (5) or better	Percentage "Skillful" (score of 5) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
18	10	47	***

* NAEP Writing scale range.
*** Sample size is insufficient to permit a reliable estimate.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Eighth-Grade Prompt: *Space Visitor*

Imagine this situation!

A noise outside awakens you one night. You look out the window and see a spaceship. The door of the spaceship opens, and out walks a space creature. What does the creature look like? What does the creature do? What do you do?

Write a story about what happens next.

Writing Purpose: Narrative

Responses to this prompt were rated according to the grade 8 narrative scoring guide.

The sample below was written in response to the "Space Visitor" prompt, which elicited a wide variety of creative responses from eighth-grade students. Some students focused on the appearance of the visitor. Other students presented the experience as a dream. The sample below was chosen as an exemplar of *Basic* performance for eighth-grade writing. In this sample, the student tells a coherent story, including both a precise description of the alien — "It was green and was about 3 feet tall" — and some vivid action: "He went up stairs got his peper spray came back down and sprayed the 3 foot alean with it he the put it back on his spaceship and it flew up." Though the story has some errors in grammar and use of sentence boundaries, it does not have many errors that interfere with meaning. This response was rated "Uneven" (3 on the 6-point scoring guide), largely because of problems with sentence boundaries.

Sample Eighth-Grade *Basic* Response

One night last Friday there was Something Strange going on. I just thought well, there must be a Storm but I also herd Strange noises, noises I've never herd before but I just went to Sleep. About 2 hours later the noises were So loud I woke up it was the Strangest noise you Could ever hear. I got up and went down Stairs I herd the noises outside So I opened the front door walked out Side I herd it then in the back So I walked walked to the back and to my Suprize their was an Alein It was green and was about 3 feet tall So I was a little releved when I was 2 feet taller then it. It walked tword me. I Screemed and yelled Help! Help me! I Screemed my dad woke up Came down Stairs and noticed the Alian he was Startled to See it. He went up Stairs got his peper spray Came back down and sprayed the 3 foot Alean with it. he the put it back on his Space Ship and It flew up. I never Saw it again but I always woulded If I will ever See it again.

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Table 1.6 **Grade 8: *Space Visitor***

Overall Percentage "Uneven" (3) or better	Percentage "Uneven" (score of 3) or better within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
88	94	100	***

* NAEP Writing scale range.

*** Sample size is insufficient to permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Eighth-Grade Prompt: *Designing a TV Show*

A public television network is seeking ideas for a new series of shows that would be educational for teenagers. The series will include ten one-hour episodes and will be shown once a week. Some of the titles under consideration are:

"Great Cities of the World"

"Women in History"

"Nature Walks"

"American Legends"

Choose one of these titles. Write a letter to the network president describing your ideas for a new educational series. In your letter, describe what one episode might be like. Use specific examples of what information you would include in the episode so the network president will be able to imagine what the series would be like.

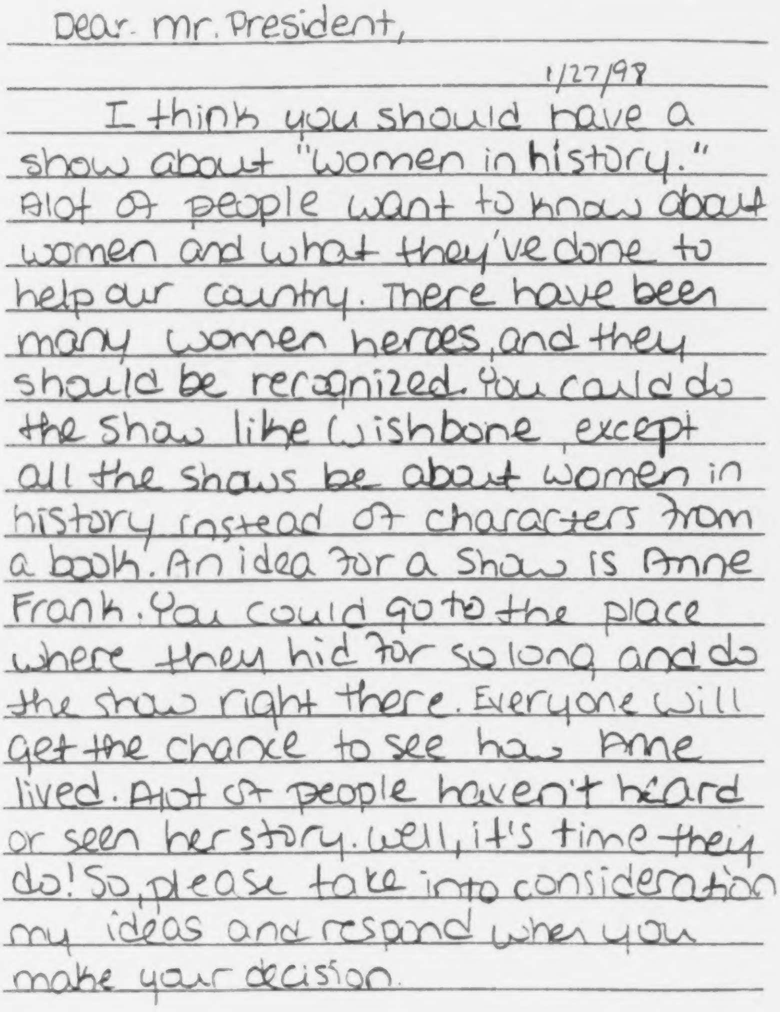
Writing Purpose: Informative

Responses to this prompt were rated according to the grade 8 informative scoring guide.

In addition to prompts that used visual material as stimulus (cartoons, drawings, etc.), some prompts asked students to use their visual imaginations in other ways. This eighth-grade prompt, which asked students how they would design an educational television series about a specific subject, encouraged students to describe how they would present information in terms of narrators, settings, dialogue, camera angles, and other aspects of presentation. Students could choose the topic of the series they would design from the list of four topics provided in the prompt or could choose a topic of their own. The prompt asked students to write in the form of a letter to the president of a television network.

The response below was chosen as an exemplar of *Proficient* writing at the eighth-grade level. This response is characterized especially by its clarity and organized structure. The student provides a clear beginning and ending and a rationale for the show ("There have been many women heroes, and they should be recognized"), as well as an example of one episode from it: "An idea for a show is Anne Frank. You could go to the place where they hid for so long and do the show right there. Everyone will get the chance to see how Anne lived." Though not very lengthy, this response shows a clear understanding of the task, and provides the necessary information to fulfill it. The language is clear and readily comprehensible, despite a few errors. This response was rated "Sufficient" (4 on the 6-point scoring guide).

Sample Eighth-Grade *Proficient* Response



Dear. mr. President,

1/27/98

I think you should have a show about "women in history." Alot of people want to know about women and what they've done to help our country. There have been many women heroes, and they should be recognized. You could do the show like Wishbone, except all the shows be about women in history instead of characters from a book. An idea for a show is Anne Frank. You could go to the place where they hid for so long and do the show right there. Everyone will get the chance to see how Anne lived. Alot of people haven't heard or seen her story. Well, it's time they do! So, please take into consideration my ideas and respond when you make your decision.

Table 1.7 Grade 8: *Designing a TV Show*

Overall Percentage "Sufficient" (4) or better	Percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
44	36	80	***

* NAEP writing scale range.

*** Sample size is insufficient to permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Eighth-Grade Prompt: ***Lengthening the School Year***

Many people think that students are not learning enough in school. They want to shorten most school vacations and make students spend more of the year in school. Other people think that lengthening the school year and shortening vacations is a bad idea because students use their vacations to learn important things outside of school.

What is your opinion?

Write a letter to your school board either in favor of or against lengthening the school year. Give specific reasons to support your opinion that will convince the school board to agree with you.

Writing Purpose: Persuasive

Responses to this prompt were rated according to the grade 8 persuasive scoring guide.

In response to this persuasive prompt, most students argued against lengthening the school year, often with reference to the educational value of vacations and time with family. Others thought lengthening the school year would be a good idea. In the *Advanced* exemplar shown, the student writes a letter that consistently develops reasons into a cohesive argument. The student points out that there are parts of one's social and cultural education that occur outside of school, and that excessive stress can be counterproductive. Each paragraph is well organized and builds support for the student's point of view. Thus, the student provides a convincing analysis. He or she also uses rhetorical strategies such as irony and refutation of an opposing argument: "Some might say that kids aren't learning enough, and since the future of the nation rests on their shoulders they need to go to school longer and learn more. I say those who are adults now went to school the same amount, if not shorter, of time that we do and they haven't completely ruined the country." This response was rated "Excellent," the top rating (6 on the 6-point scoring guide).

Sample Eighth-Grade *Advanced* Response

To Whom it May Concern,

I've heard about the debate of whether or not to lengthen the school year. I decided to voice my opinion. I believe that the school year should not be lengthened. Kids are stressed out enough with homework and school without adding more. Some might say that kids aren't learning enough, and since the future of the nation rests on their shoulders they need to go to school longer and learn more. I say those who are adults now went to school the same amount, if not shorter, of time that we do and they haven't completely ruined the country.

To make the country better you don't just need to know math, English, and history; you need to know social skills like getting along with others. You learn social skills at school but you can learn them just as easily while on vacation. If you go to another country for vacation you learn to accept and respect other cultures.

This can help extinguish predujuces.

Sample Eighth-Grade *Advanced* Response (continued)

If you add more schoolwork and homework kids will get more stressed out. When you're stressed out you aren't as agreeable and sometimes just give up trying and don't care a difference in the world.

I once heard someone say that you are only a kid for a short time. When you're an adult you have enough stress and ~~[illegible] lot of~~ hardly any time. for fun, so-why put stress on kids and make them lose their time for fun. Why turn them into adults before their time?

I completely agree with the person who said this. Let kids have fun and not be stuck in a hot school listening to a lecture, or at home doing homework when they used to be swimming or hanging out with their friends.

Thank you for considering my letter.

Table 1.8 Grade 8: *Lengthening the School Year*

Overall Percentage "Excellent" (6)	Percentage "Excellent" (score of 6) within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
3	0	8	***

* NAEP Writing scale range

*** Sample size is insufficient to permit a reliable estimate

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Twelfth-Grade Prompt: *Writing Mentor*

Your school has a program in which a twelfth grader acts as a mentor for a tenth grader at the beginning of each school year. The mentor's job is to help the tenth grader have a successful experience at your school. The tenth grader you are working with is worried about being able to write well enough for high school classes.

Write a letter to your tenth grader explaining what kind of writing is expected in high school classes and what the student can do to be a successful writer in high school.

As you plan your response, think about your own writing experiences. How would you describe "good" writing? What advice about writing has been helpful to you? What writing techniques do you use?

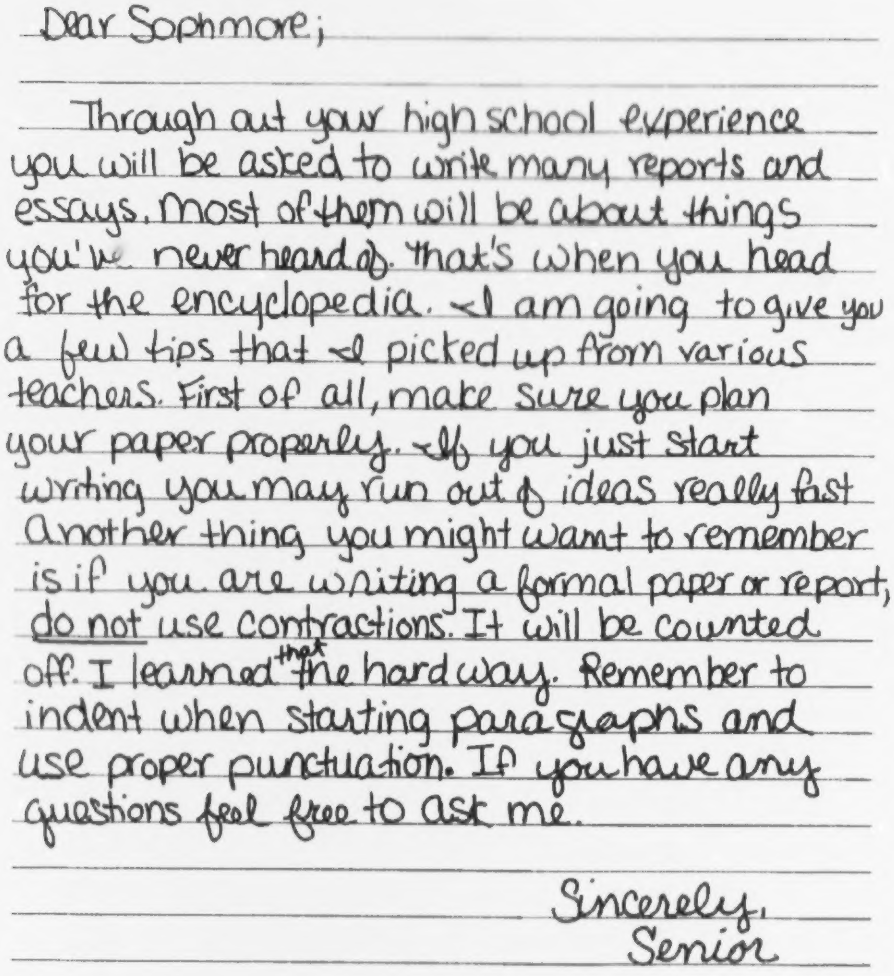
Writing Purpose: Informative

Responses to this prompt were rated according to the grade 12 informative scoring guide.

The sample shown is an exemplar of *Basic* performance at the twelfth-grade level. It was written in response to the "Writing Mentor" prompt, an informative prompt that asked students to give advice about writing to a younger student. In their responses, some students described the writing process, others detailed how good writing is defined, and still others described personal experiences with writing to illustrate how they learned to write.

In this *Basic* exemplar, the student provides a clear sequence of information with some details. The response is relatively brief, but clear and focused. The student offers some details ("Remember to indent when starting paragraphs and use proper punctuation") and provides general organization of his or her points. The response does not use complicated sentence structures, but does have some sentence variety and few errors. This response was rated "Sufficient" (4 on the 6-point scoring guide).

Sample Twelfth-Grade *Basic* Response



Dear Sophmore;

Through out your high school experience you will be asked to write many reports and essays. Most of them will be about things you've never heard of. that's when you head for the encyclopedia. I am going to give you a few tips that I picked up from various teachers. First of all, make sure you plan your paper properly. If you just start writing you may run out of ideas really fast Another thing you might want to remember is if you are writing a formal paper or report, do not use contractions. It will be counted off. I learned that the hard way. Remember to indent when starting paragraphs and use proper punctuation. If you have any questions feel free to ast me.

Sincerely,
Senior

Table 1.9 **Grade 12: *Writing Mentor***

Overall Percentage "Sufficient" (4) or better	Percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
71	78	99	***

* NAEP Writing scale range.

*** Sample size is insufficient to permit a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Twelfth-Grade Prompt: *Special Object*

Read the following excerpt from a poem by Walt Whitman.

> There was a child who went forth every day,
> And the first object he look'd upon, that
>   object he became,
> And that object became part of him for
>   the day or a certain part of the day,
> Or for many years or stretching cycles
>   of years.

Whitman's poem suggests that certain objects become important to us and remain important to us even if we no longer have them.

Write a story in which you tell about an object that remains important to the main character over a period of years. The main character could be you or someone you know.

In your story, describe the main character's first encounter with the object, why the object is so important to the character, and how, over the years, it remains a part of the character's life.

Writing Purpose: Narrative

Responses to this prompt were rated according to the grade 12 narrative scoring guide.

The next sample, an exemplar of *Proficient* performance at grade 12, was written in response to the "Special Object" prompt. This prompt, like the "Favorite Object" prompt at grade 4 (shown earlier in this chapter), asked students to identify an important object. In the twelfth-grade version of the prompt, students were asked to write about a character to whom an object was important. Thus, this prompt was classified as narrative, while the fourth-grade prompt, which asked students to describe an object important to them, was informative. Many students in twelfth grade wrote interesting and detailed narratives in response to the prompt. Many alluded to the Whitman poem provided in the prompt, in which, as a child responds to an object, "that object became part of him for the day or a certain part of the day,/Or for many years or stretching cycles of years."

The *Proficient* exemplar shown is notable for its detailed characterization and description: "I was a young immigrant in an unknown world; everything seemed so vast and unexplainable. I began working in a nearby factory for what seemed to be a phenomenal wage." The student recreates both the moment when the character met her husband and her fond memories of him years later. The object of the wedding ring here is clearly used for symbolic purposes. The transition to memory in the last paragraph conveys the sense, as in Whitman's poem, that the things we love are never really lost to us. This response shows good command of stylistic elements. It does, however, have a gap between the character's first meeting with her husband and his death. This response was rated "Skillful" (5 on the 6-point scoring guide).

Sample Twelfth-Grade *Proficient* Response

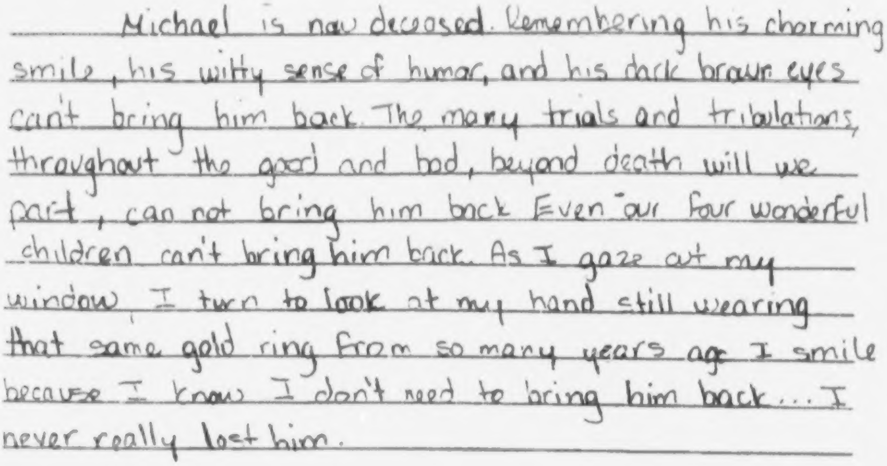
I was 19 years old when I first saw him. I was a young immigrant in an unknown world; everything seemed so vast and unexplainable.

I began working in a nearby factory for what seemed to be a phenomenal wage. I was young and fresh and had the world at my fingertips. I carefully walked into my new employment (equipped with a brand new dress) and laid my eyes upon the most handsome young man I've ever met. Sensing my attraction, he smiled and waved at me. I nearly fell to the ground.

Later that day we had lunch together. It turns out we were both new Italian immigrants - the only difference - I was from Sicily and he was from Venice. Needless to say we were off to a wonderful start.

Time has passed now, but I still recall September 19th of that year. It was a dreary misty day and I trudged into work 20 minutes late. It was my 20th birthday and I was in a horrible mood; Nothing was going right until I got to work. By the end of the day, I was wearing a delicate gold ring on my finger.

Sample Twelfth-Grade *Proficient* Response (continued)



Michael is now deceased. Remembering his charming smile, his witty sense of humor, and his dark brown eyes can't bring him back. The many trials and tribulations, throughout the good and bad, beyond death will we part, can not bring him back Even our four wonderful children can't bring him back. As I gaze out my window, I turn to look at my hand still wearing that same gold ring from so many years ago I smile because I know I don't need to bring him back... I never really lost him.

Table 1.10 **Grade 12: *Special Object***

Overall Percentage "Skillful" (5) or better	Percentage "Skillful" (score of 5) or better within achievement level ranges: *Basic* 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
44	42	82	***

* NAEP Writing scale range.
*** Sample size is insufficient to permit a reliable estimate.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Twelfth-Grade Prompt: *One Vote*

Your school is sponsoring a voter registration drive for 18-year-old high school students. You and three of your friends are talking about the project. Your friends say the following.

Friend 1: "I'm working on the young voters' registration drive. Are you going to come to it and register? You're all 18, so you can do it. We're trying to help increase the number of young people who vote and it shouldn't be too hard — I read that the percentage of 18- to 20-year-olds who vote increased in recent years. We want that percentage to keep going up."

Friend 2: "I'll be there. People should vote as soon as they turn 18. It's one of the responsibilities of living in a democracy."

Friend 3: "I don't know if people should even bother to register. One vote in an election isn't going to change anything."

Do you agree with friend 2 or 3? Write a response to your friends in which you explain whether you will or will not register to vote. Be sure to explain why and support your position with examples from your reading or experience. Try to convince the friend with whom you disagree that your position is the right one.

Writing Purpose: Persuasive

Responses to this prompt were rated according to the grade 12 persuasive scoring guide.

This twelfth-grade persuasive prompt, "One Vote," provided context for a debate about the importance of voting by presenting a conversation among three friends about whether or not it is important to register and vote when one turns 18. Students were asked to participate in the debate by responding to the friends described in the prompt. Some students responded in letter format. Some addressed both sides of the debate, discussing both Friend 2's contention that "People should vote as soon as they turn 18" and Friend 3's view that "One vote in an election isn't going to change anything."

The following response was chosen as an exemplar of *Advanced* performance at grade 12, and received the top rating of "Excellent" (6 on the six-point scoring guide). A sophisticated command of rhetoric is evident throughout. The student notes that the question of whether one vote could sway an election is not as significant as the issue of the importance of voting overall. He or she consistently supports points with details or examples, uses transitions throughout, and exhibits good control of language.

Sample Twelfth-Grade *Advanced* Response

Whether a single person's vote makes a difference in an election is irrelevant. a democratic nation is one that recognizes an individual right to think and formulate an opinion, and voting is a manifestation of that right.

Mankind, the acknowledged ruler of the Earth, has little advantage over the other life-forms he shares existence with. As pointed out in the play *Inherit the Wind*, the horse is swifter, the mosquito more prolific, even a simple sponge is more durable. What separates mankind from other species is his simple brain-power: his ability to think.

The founding fathers of america recognized the fatal flaw of other nations – Foolish monarchs who claimed absolute authority over their subjects Dictatorial societies have the same root cause of their downfall – the attempts of squelching out personal opinion.

Voting celebrates the freedom the nation received on July 4, 1776. Voting is not a duty or a chore, it is a priveledge that we as humans have as our only advantage. We have the right and fortunantely because of democratic society, the freedom to think.

Table 1.11 Grade 12: *One Vote*

Overall Percentage "Excellent" (6)	Percentage "Excellent" (score of 6) within achievement level ranges		
	Basic 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
3	0	9	***

* NAEP writing scale range.
*** Sample size is insufficient to permit a reliable estimate.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Summary

- In the 1998 NAEP writing assessment, average scores for the nation were set at 150 on a scale of 0 to 300 for all grades assessed (4, 8, and 12).
- In 1998, at grade 4, 23 percent of students achieved the *Proficient* level or higher on the writing assessment. Eighty-four percent of fourth-grade students achieved the *Basic* level or higher, and 1 percent of students achieved the *Advanced* level. At grade 8, 27 percent of students achieved the *Proficient* level or higher on the writing assessment. Eighty-four percent of students at grade 8 achieved the *Basic* level or higher, and 1 percent of students achieved the *Advanced* level. At grade 12, 22 percent of students achieved the *Proficient* level or higher on the writing assessment. Seventy-eight percent of twelfth-grade students achieved the *Basic* level or higher, and 1 percent of students achieved the *Advanced* level.

CHAPTER 2

Average Writing Scale Score Results for Selected Subgroups

Overview

This chapter presents average writing scale score results for various subgroups of students. The findings are summarized on the National Assessment of Educational Progress (NAEP) writing scale, which has a range of 0 to 300. An examination of the score patterns of these subgroups provides insight into how general patterns of writing performance are related to certain background characteristics. Results are reported by gender, race/ethnicity, parental education, region, type of location, eligibility for the Free/Reduced-Price School Lunch Program, and type of school. Achievement level results for the same subgroups are presented in Chapter 3.

The differences reported between subgroups for the 1998 assessment are based on statistical tests that consider both the magnitude of the difference between the subgroups' average scores or percentages and the standard errors of the statistics. Throughout the chapter, differences are discussed only if they were determined to be statistically significant.[1]

In interpreting subgroup results, the reader is reminded that differences in writing performance reflect a range of socioeconomic and educational factors not discussed in this report or addressed by the NAEP assessment program. A complex array of factors combine to affect students' achievement and their performance on measures of writing achievement. Important issues such as opportunities to learn and sociocultural environmental factors must be considered in interpreting these differences.[2] Therefore, readers should avoid making simple or causal inferences based on these data.

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[1] See Appendix A for a more detailed discussion of statistical significance testing procedures.

[2] Stevens, F. (1993). *Opportunity to learn: Issues of equity for poor and minority students.* Washington, DC: National Center for Education Statistics.

Gender

Table 2.1 shows the 1998 average writing scale scores for males and females. In this table and in all the tables in this chapter, the percentage of students in each subgroup (for example, the percentage of female students who took the NAEP writing assessment) is presented next to the average scale score.

At all three grades, female students had higher average scale scores than their male peers. Research has shown that females have achieved higher scale scores than males on a variety of previous writing assessments.[3] On the NAEP 0-to-300 writing scale, the difference between scores for female and male students was 16 points at grade 4, 20 points at grade 8, and 19 points at grade 12.

Table 2.1

Average writing scale scores by gender: 1998

	Percentage of students	Average scale score
Grade 4		
Male	51	142
Female	49	158
Grade 8		
Male	51	140
Female	49	160
Grade 12		
Male	48	140
Female	52	159

NOTE: Percentages may not add to 100 due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Race/Ethnicity

As part of the background questionnaire administered with the NAEP 1998 writing assessment, students were asked to indicate the racial/ethnic subgroup that best described them. The mutually exclusive response options were: White, Black, Hispanic, Asian/Pacific Islander, and American Indian (including Alaskan Native).

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[3] Cole, N. (1997). *The ETS gender study: How females and males perform in educational settings.* Princeton, NJ: Educational Testing Service.

The 1998 average writing scale scores for students in racial/ethnic subgroups are presented in Table 2.2. As in previous NAEP assessments in a variety of academic subjects, differences in writing performance among racial/ethnic groups were evident at all three grades.

At grade 4, Asian/Pacific Islander students had higher scale scores than all other groups. Also at grade 4, White students outperformed Black, Hispanic, and American Indian students, and American Indian students outperformed their Black peers. At grades 8 and 12, Asian/Pacific Islander and White students had higher scores than their peers in the other groups.

Table 2.2

Average writing scale scores by race/ethnicity: 1998

	Percentage of students	Average scale score
Grade 4		
White	67	157
Black	15	131
Hispanic	13	134
Asian/Pacific Islander	2	164
American Indian	2	138
Grade 8		
White	67	158
Black	14	131
Hispanic	14	131
Asian/Pacific Islander	3	159
American Indian	1	132
Grade 12		
White	69	156
Black	14	134
Hispanic	12	135
Asian/Pacific Islander	4	152
American Indian	1	129

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Parents' Highest Level of Education[4]

Parents have a strong influence on their children's education, as shown by previous NAEP assessments and many other studies.[5] Chapter 4 explores the influence of several home factors on students' achievement in writing, including the importance of parents' talking to their children about their studies.

Many studies have also shown that, generally, the higher the parents' level of education, the higher their children's performance. This was also true for the NAEP writing assessment. For this analysis, the highest level of education reported for either parent was used. Generally, at all three grades, the higher the parents' level of education, the higher the students' scale scores. At grade 12, this held true for every level. At grades 4 and 8, the average scores of students whose parents had some education after high school were similar to those of students whose parents graduated from high school. In addition, generally at all three grades, students who did not know their parents' highest level of education had lower scale scores than those who did.

These results should be placed in some context. Note that some research has questioned the accuracy of student-reported data on parental education; therefore, caution should be used in interpreting the findings.[6] Also, note that eleven percent of fourth graders, 3 percent of eighth graders, and 1 percent of twelfth graders reported not knowing their parents' educational level. Finally, parental education may be related to higher income, which could affect educational opportunities.

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[4] The 1998 NAEP writing assessment used a different set of questions than past NAEP assessments to determine parents' highest level of education. Consequently, patterns of relationships between this background variable and scale scores may differ slightly from past results.

[5] See, for example, Donahue, P.L., Voelkl, K.R., Campbell, J.R., & Mazzeo, J. (1999.) *The NAEP 1998 reading report card for the nation and the states.* Washington, DC: National Center for Education Statistics.

U.S. Department of Education. (1994). *Strong families, strong schools: Building community partnerships for leadership.* Washington, DC: Author.

[6] Looker, E.D. (1989). Accuracy of proxy reports of parental status characteristics. *Sociology of Education, 62*(4), 257–279.

Table 2.3

Average writing scale scores by parents' highest level of education: 1998

	Percentage of students	Average scale score
Grade 4		
Graduated from college	57	153
Some education after high school	16	149
Graduated from high school	12	150
Did not finish high school	3	136
I don't know.	11	139
Grade 8		
Graduated from college	50	159
Some education after high school	27	145
Graduated from high school	15	145
Did not finish high school	5	130
I don't know.	3	117
Grade 12		
Graduated from college	52	159
Some education after high school	27	145
Graduated from high school	14	142
Did not finish high school	6	128
I don't know.	1	113

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Region of the Country

Table 2.4 presents results by four regions of the country: Northeast, Southeast, Central, and West. The composition of the regions is described in Appendix A.

Comparisons of scale scores show differing performance by region. At grades 4 and 8, students in the Northeast and Central regions had higher average scale scores than their peers in the Southeast and West. At grade 12, students in the Southeast had lower scores than those in the three other regions. It should be noted that many of the differences in performance by region, though statistically significant, were small.

Table 2.4

THE NATION'S REPORT CARD naep

Average writing scale scores by region: 1998

	Percentage of students	Average scale score
	Grade 4	
Northeast	23	154
Southeast	25	146
Central	24	156
West	27	145
	Grade 8	
Northeast	21	155
Southeast	25	145
Central	25	155
West	29	146
	Grade 12	
Northeast	22	152
Southeast	23	144
Central	25	153
West	29	151

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Type of Location

Another way to look at student performance is by the location of their schools. Again, a complex variety of factors, including socioeconomic factors and availability of resources in schools, is represented by school location. The three types of location — central city, urban fringe/large town, and rural/small town — are based on Census Bureau definitions of metropolitan statistical areas, population size, and density. These classifications, based solely on geographic characteristics, are described in Appendix A.

As Table 2.5 shows, fourth- and eighth-grade students in central city schools had lower average scale scores than their peers in the other locations. At grades 8 and 12, students in urban fringe/large town schools had higher average scale scores than those in rural/small town schools. At grade 12, the average scores of students in central city schools did not differ significantly from those of their peers attending schools in other locations.

Table 2.5

THE NATION'S REPORT CARD naep

Average writing scale scores by type of location: 1998

	Percentage of students	Average scale score
	Grade 4	
Central city	35	145
Urban fringe/large town	36	154
Rural/small town	29	151
	Grade 8	
Central city	33	145
Urban fringe/large town	40	155
Rural/small town	27	149
	Grade 12	
Central city	32	150
Urban fringe/large town	39	152
Rural/small town	30	147

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Eligibility for the Free/Reduced-Price School Lunch Program

The Free/Reduced-Price School Lunch component of the National School Lunch Program, offered through the U.S. Department of Agriculture, is designed to ensure that children near or below the poverty line receive nourishing meals.[7] The program is available to public schools, nonprofit private schools, and residential child-care institutions. Eligibility for free or reduced-price meals is determined through the USDA's Income Eligibility Guidelines, which require that family income be at 135 percent of the poverty level or less for a student to receive free lunches, and at 180 percent of the poverty level or less for a student to receive reduced-price lunches. As Table 2.6 shows, at least 34 percent of fourth-grade students, 27 percent of eighth-grade students, and 14 percent of twelfth-grade students were eligible for this program.[8]

Eligibility for the Free/Reduced-Price School Lunch Program is an indicator of poverty. Table 2.6 shows the relationship between that indicator and student performance in writing. The results show that family income has an association with writing achievement: students eligible for free or reduced-price lunches because of poverty had lower scores than those who were not eligible at all three grades (by 24 scale score points at grade 4, 25 points at grade 8, and 19 points at grade 12). At grades 4 and 8, these differences in scale scores were greater than those between male and female students; at grade 12 they were the same as the difference in scores between male and female students.

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[7] U.S. General Services Administration. (1995). *Catalog of federal domestic assistance.* Washington, DC: Executive Office of the President, Office of Management and Budget.

[8] Information on eligibility was not provided for 13, 17, and 20 percent of students at grades 4, 8, and 12, respectively. Some of those students may also have been eligible for free/reduced-price lunches.

Table 2.6

Average writing scale scores by Free/Reduced-Price School Lunch Program eligibility: 1998

	Percentage of students	Average scale score
Grade 4		
Eligible	34	134
Not eligible	54	158
Information not available	13	157
Grade 8		
Eligible	27	132
Not eligible	55	157
Information not available	17	157
Grade 12		
Eligible	14	133
Not eligible	66	152
Information not available	20	155

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Type of School

Average writing scale scores by type of school are presented in Table 2.7. Schools were classified as either public or nonpublic; nonpublic schools were then further divided into Catholic or other nonpublic schools.

At all three grades, students in both types of nonpublic schools had higher average scale scores than their peers in public schools. In addition, at grade 12, students in Catholic schools outperformed students in other nonpublic schools.

Previous NAEP writing assessments and other survey research on educational achievement have found significant differences in the performance of students attending public schools and those attending nonpublic schools.[9] However, the reader is cautioned against using NAEP results to make simplistic inferences about the relative effectiveness of public and nonpublic schools. Average performance differences between the two types of schools may be related in part to socioeconomic and sociological factors. For example, some research points to instructional and policy differences between the two types of schools to explain the higher performance of private school students,[10] while other studies have suggested that student selection and parental involvement are more significant contributors to performance differences.[11]

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[9] Applebee, A., Langer, J.A., Mullis, I.V.S., Latham, A.S., & Gentile, C. (1994). *NAEP 1992 writing report card.* Washington, DC: National Center for Education Statistics.

Campbell, J.R., Voelkl, K.E., & Donahue, P.L. (1997). *NAEP 1996 trends in academic progress.* Washington, DC: National Center for Education Statistics.

[10] Coleman, J., Hoffer, T., & Kilgore, S. (1982). Cognitive outcomes in public and private schools. *Sociology of Education*, 55, 65-76.

[11] Alexander, K.L. & Pallas, A.M. (1983). Private schools and public policy: New evidence on cognitive achievement in public and private schools. *Sociology of Education*, 56, 170-82.

Table 2.7

Average writing scale scores by type of school: 1998

	Percentage of students	Average scale score
	Grade 4	
Public	88*	148
Nonpublic	11*	164
Nonpublic: Catholic	7	163
Other nonpublic	4	165
	Grade 8	
Public	89	148
Nonpublic	11	167
Nonpublic: Catholic	7	169
Other nonpublic	5	166
	Grade 12	
Public	88	148
Nonpublic	12	165
Nonpublic: Catholic	8	167
Other nonpublic	3	159

* Percentages of public and nonpublic schools do not add to 100 because the Bureau of Indian Affairs schools were not counted in either category.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Summary

For the NAEP 1998 writing assessment, the following patterns of scale score results across subgroups of students were observed. These differences may be related in part to sociological and socioeconomic factors.

- Gender: Female students had higher average scale scores than male students at all three grades.
- Race/ethnicity: At grade 4, Asian/Pacific Islander students had higher average scale scores than their White peers, who had higher average scale scores than their Black, Hispanic, and American Indian peers. At grades 8 and 12, Asian/Pacific Islander students and White students had higher average scale scores than Black, Hispanic, and American Indian students.
- Parental education: In general, higher levels of parental education were associated with higher levels of student performance at all three grade levels. For example, at all three grades, students who reported that at least one parent graduated from college had higher average scale scores than students who reported lower levels of parental education and students who did not know the level of their parents' education.
- Region: Students in the Northeast and Central regions had higher average scale scores than those in the Southeast and West at grades 4 and 8. At grade 12, students in the Northeast, Central, and West regions outperformed their peers in the Southeast.
- Type of location: At grades 4 and 8, students from schools in urban fringe/large town and rural/small town locations had higher average scale scores than their peers in central city schools. At grade 12, there was no significant difference between the scores of students in central city schools and those of their peers in schools in the other locations. At grades 8 and 12, students from schools in urban fringe/large town locations outperformed their peers from schools in rural/small town locations.
- Free/Reduced-Price School Lunch eligibility: In 1998, for the first time, the NAEP writing assessment collected information on this federally funded program, an indicator of poverty. Results indicated that, at all three grades, students who were eligible for the Free/Reduced-Price School Lunch component of the National School Lunch Program had lower average scale scores than students who were not eligible.
- Type of school: At all three grade levels, students attending nonpublic schools had higher average scale scores than their counterparts attending public schools. At grade 12, students attending Catholic schools had higher average scale scores than their peers attending other nonpublic schools.

ACHIEVEMENT LEVELS

CHAPTER 3

Writing Achievement Level Results for Selected Subgroups

Overview

The performance of our nation's students on the National Assessment of Educational Progress (NAEP) writing scale can be viewed in relation to expectations of what students should know and should be able to do. The percentages of students who attained the three achievement levels established by the National Assessment Governing Board (NAGB) provide an indication of whether student performance meets these expectations.

Three writing achievement levels — *Basic*, *Proficient*, and *Advanced* — are used to report the NAEP results. NAGB established these writing achievement levels in 1999 for the content framework that provided the basis for the 1998 assessment. The *Basic* level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade. The *Proficient* level represents solid academic performance. Students reaching this level demonstrate competency over challenging subject matter. The *Advanced* level signifies superior performance at a given grade. For each grade, the levels are cumulative; that is, abilities achieved at the *Proficient* level presume mastery of abilities associated with the *Basic* level, and attainment of the *Advanced* level presumes mastery of both the *Basic* and the *Proficient* levels. The definitions of these levels of achievement for writing for each of the three grades in the NAEP writing assessment are presented in Figures 1.1 through 1.3 in Chapter 1.

The NAEP legislation requires that achievement levels be "used on a developmental basis until the Commissioner of Education Statistics determines . . . that such levels are reasonable, valid, and informative to the public." A discussion of the developmental status of achievement levels may be found in the Introduction to this report. Because the overall percentage of students who attained the *Advanced* level at each grade was so small, few differences in performance between subgroups were detected at this level.

Gender

The percentages of male and female students attaining the *Basic*, *Proficient*, and *Advanced* levels are given in Table 3.1 and Figure 3.1. Table 3.1 shows the percentage of students at or above each of the achievement levels. In reading Table 3.1, it is necessary to keep in mind that the levels are cumulative. That is, included among students who are considered to be at or above *Basic* are those who achieved the *Proficient* and *Advanced* levels of performance, and included among students who are considered to be at or above *Proficient* are those who have attained the *Advanced* level of performance. Figure 3.1 also shows achievement level results, but in terms of the percentage of students within each achievement level range. All the tables and figures in this chapter follow that format.

At all three grades, higher percentages of female than male students were at or above the *Basic* and *Proficient* levels and at the *Advanced* level.

Table 3.1

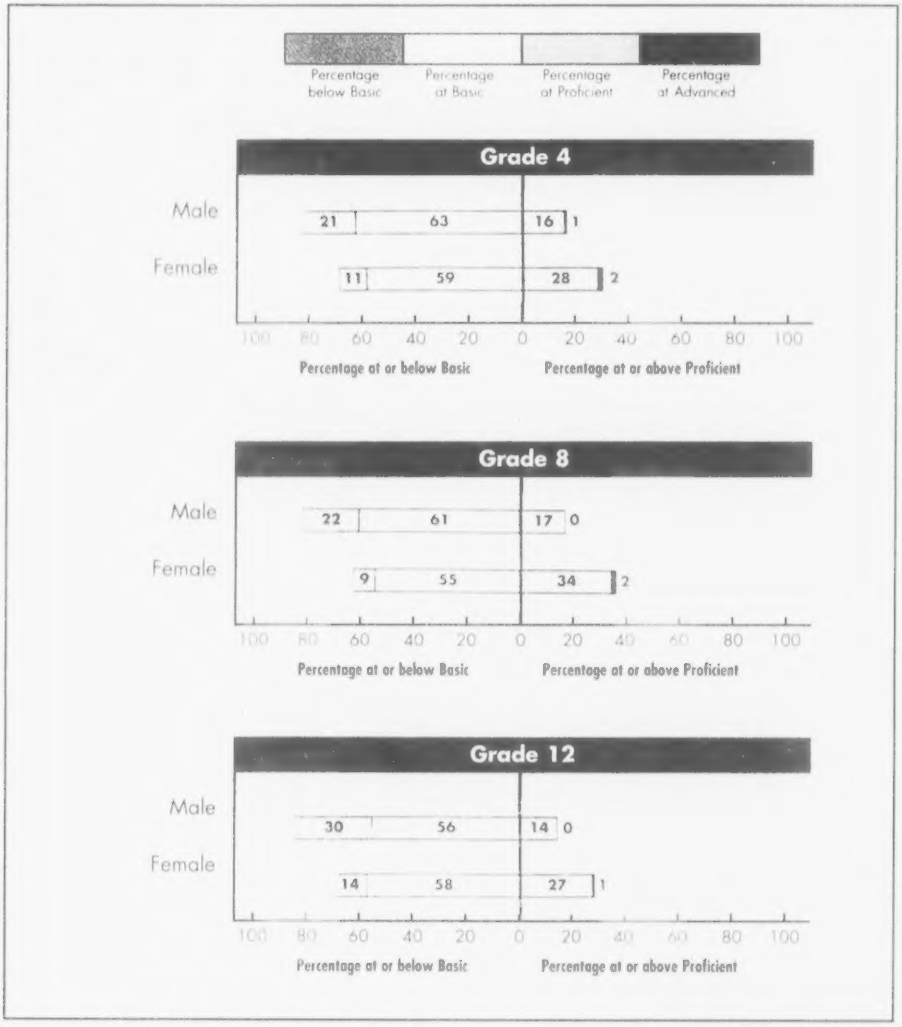
Percentage of students at or above achievement levels in writing by gender: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
		Grade 4		
Male	21	79	16	1
Female	11	89	30	2
		Grade 8		
Male	22	78	17	0
Female	9	91	36	2
		Grade 12		
Male	30	70	14	0
Female	14	86	29	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 3.1

Percentage of students within each achievement level range in writing by gender: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Race/Ethnicity

Achievement level results by racial/ethnic group are presented in Table 3.2 and Figure 3.2. The percentages of students performing at or above the three achievement levels are shown in Table 3.2. The percentages of students within each achievement level range are displayed in Figure 3.2. Differences among racial/ethnic groups were seen at grades 4, 8, and 12.

At grade 4, there were higher percentages of Asian/Pacific Islander students at or above the *Proficient* level than of any other group. Also, White students outperformed their Black, Hispanic, and American Indian counterparts in terms of percentages at or above the *Proficient* achievement level at grade 4. At grades 8 and 12, there were higher percentages of White students and Asian/Pacific Islander students than Black, Hispanic, and American Indian students who were at or above the *Proficient* achievement level.

At grade 4, there were higher percentages of Asian/Pacific Islander students than White students at or above the *Basic* level. Also at grade 4, higher percentages of Asian/Pacific Islander students and White students than Black, Hispanic, and American Indian students were at or above the *Basic* level. There were higher percentages of White and Asian/Pacifier Islander students than Black, Hispanic, and American Indian students at or above the *Basic* achievement level at both grades 8 and 12. As Figure 3.2 shows, for all groups at all three grades, approximately one-half or more of the students were within the *Basic* achievement level range.

Table 3.2

THE NATION'S REPORT CARD naep

Percentage of students at or above achievement levels in writing by race/ethnicity: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
White	10	90	29	2
Black	31	69	8	0
Hispanic	28	72	10	0
Asian/Pacific Islander	7	93	36	4
American Indian	24	76	11	1
Grade 8				
White	10	90	34	2
Black	28	72	8	0
Hispanic	31	69	11	0
Asian/Pacific Islander	10	90	35	2
American Indian	27	73	9	0
Grade 12				
White	16	84	26	1
Black	36	64	8	0
Hispanic	35	65	10	0
Asian/Pacific Islander	22	78	24	1
American Indian	42	58	9	0

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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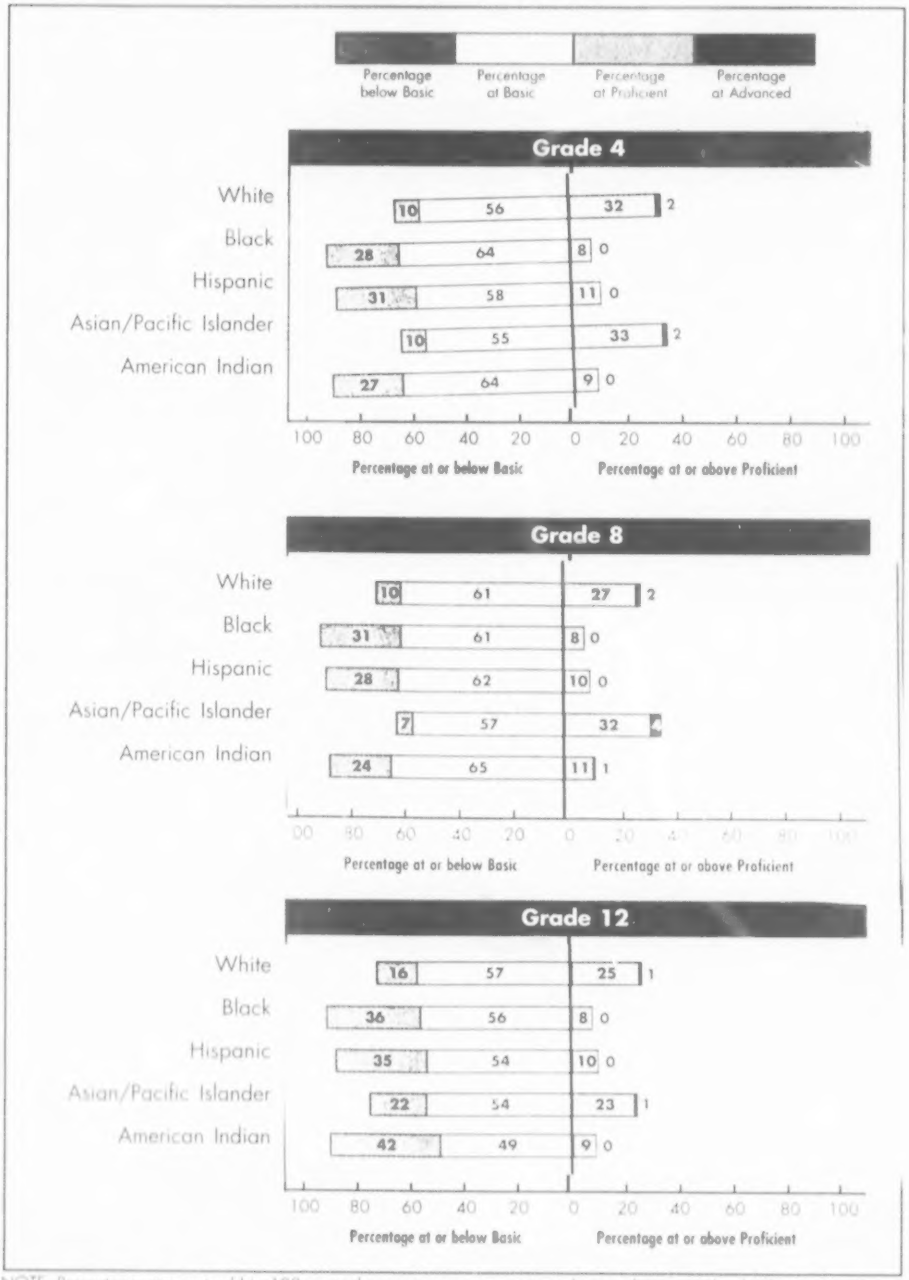
Figure 3.2

Percentage of students within each achievement level range in writing by race/ethnicity: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Parents' Highest Level of Education

Table 3.3 and Figure 3.3 present achievement level results based on students' reports of their parents' highest level of education. The percentages of students performing at or above the three achievement levels are shown in Table 3.3. The percentages of students within each achievement level range are displayed in Figure 3.3. As shown in Table 3.3, parental education and student achievement generally are positively associated.

Chapter 2 showed that student performance tended to be higher with higher levels of parental education, and the results for achievement levels show a similar pattern. At all three grades, higher percentages of students whose parents graduated from college were at the *Advanced* achievement level than students whose parents had some education after high school. Higher percentages of students whose parents graduated from college than students whose parents had lower levels of education were at or above the *Proficient* achievement level at all three grades, and at or above the *Basic* level at grades 8 and 12.

At all three grades, higher percentages of students whose parents graduated from high school were at or above *Proficient* than those whose parents did not graduate from high school.

Table 3.3

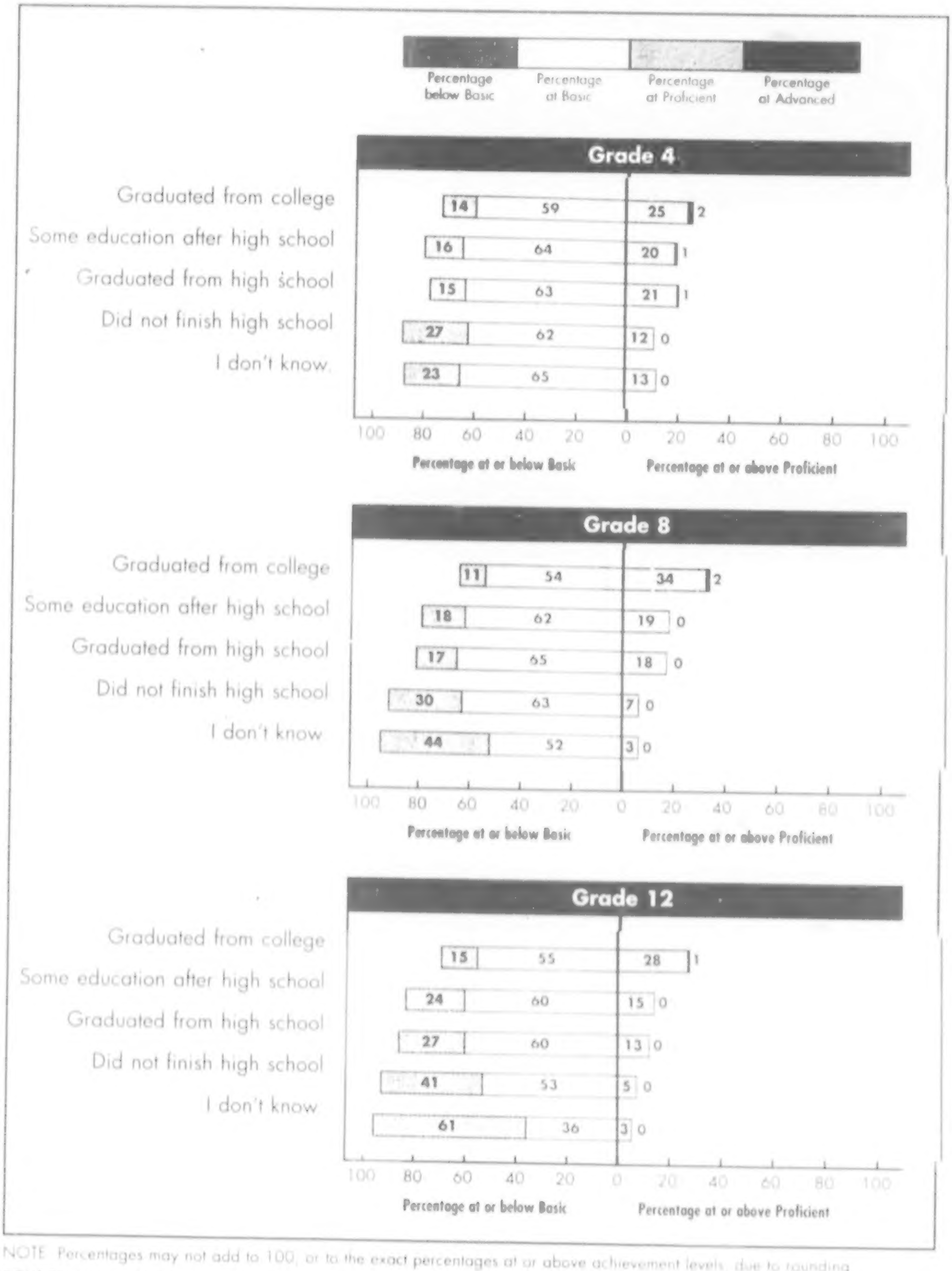
Percentage of students at or above achievement levels in writing by parents' highest level of education: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Graduated from college	14	86	27	2
Some education after high school	16	84	21	1
Graduated from high school	15	85	22	1
Did not finish high school	27	73	12	0
I don't know.	23	77	13	0
Grade 8				
Graduated from college	11	89	36	2
Some education after high school	18	82	20	0
Graduated from high school	17	83	19	0
Did not finish high school	30	70	8	0
I don't know.	44	56	3	0
Grade 12				
Graduated from college	15	85	30	1
Some education after high school	24	76	16	0
Graduated from high school	27	73	13	0
Did not finish high school	41	59	5	0
I don't know.	61	39	3	0

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 3.3

Percentage of students within each achievement level range in writing by parents' highest level of education: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Region of the Country

The percentages of students performing at or above the three achievement levels by region are shown in Table 3.4. The percentages of students within each achievement level range by region are displayed in Figure 3.4. (The composition of the regions is described in Appendix A.)

For grades 4 and 8, higher percentages of students in the Northeast and Central regions were at or above the *Proficient* achievement level than their peers in the Southeast region and the West. At grade 12, fewer students in the Southeast region were at or above *Proficient* than their peers in the other three regions.

In terms of performance at or above the *Basic* level, the Northeast and Central regions had higher percentages of students than the Southeast and West at grades 4 and 8. At grade 12, higher percentages of students in the Northeast, Central, and West regions were at or above the *Basic* level than students in the Southeast.

Table 3.4

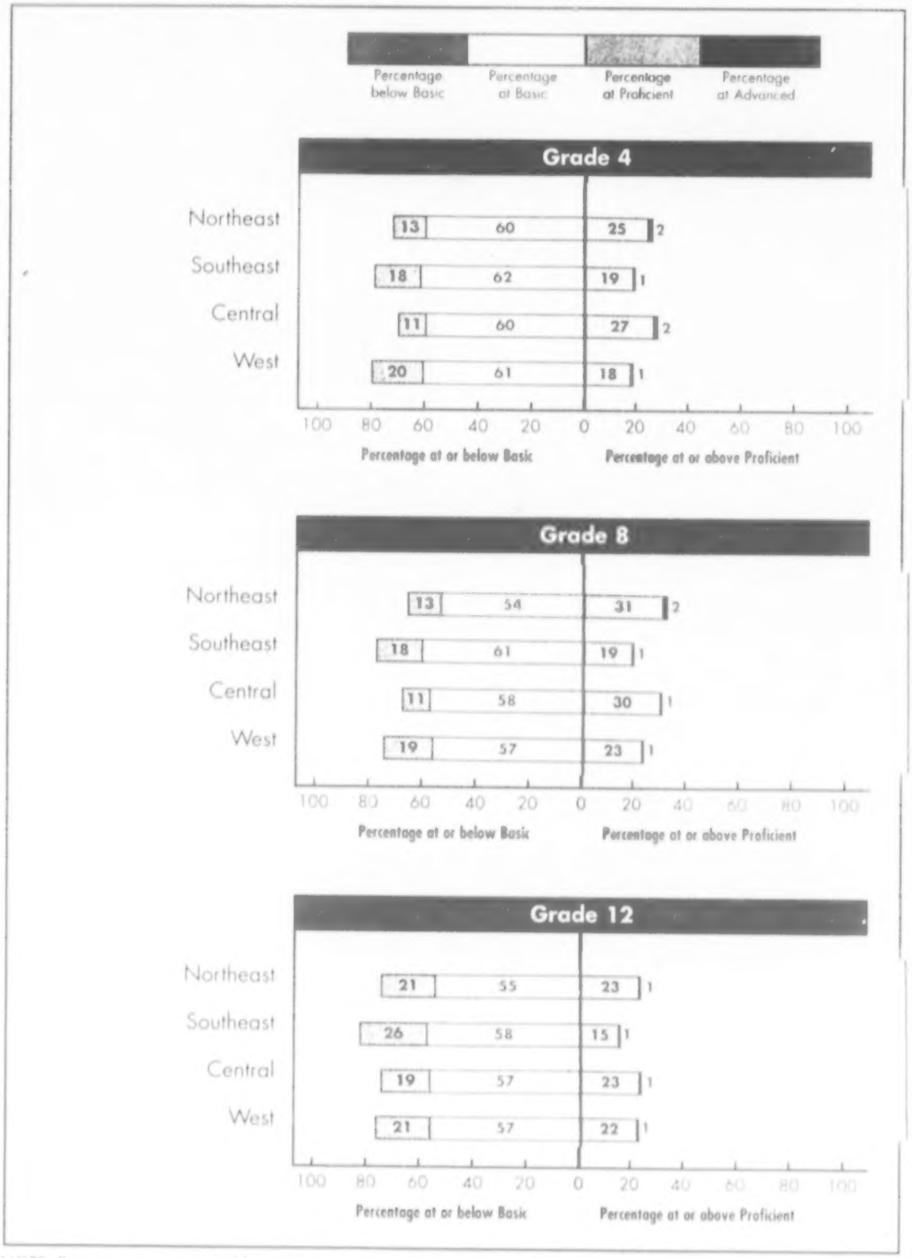
Percentage of students at or above achievement levels in writing by region: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Northeast	13	87	26	2
Southeast	18	82	20	1
Central	11	89	28	2
West	20	80	19	1
Grade 8				
Northeast	13	87	33	2
Southeast	18	82	20	1
Central	11	89	31	1
West	19	81	24	1
Grade 12				
Northeast	21	79	24	1
Southeast	26	74	16	1
Central	19	81	25	1
West	21	79	22	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 3.4

Percentage of students within each achievement level range in writing by region: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Type of Location

Table 3.5 and Figure 3.5 present achievement level results for all three grades by type of location: central city, urban fringe/large town, and rural/small town. The percentages of students performing at or above the three achievement levels are shown in Table 3.5. Figure 3.5 displays the percentages of students within each achievement level range. (The type of location classifications are described in Appendix A.)

At grades 4 and 8, higher percentages of students from schools in urban fringe/large town locations were at or above the *Proficient* level than those from schools in central city locations. At grades 8 and 12, higher percentages of students from schools in urban fringe/large town locations were at or above the *Proficient* level than those from schools in rural/small town locations. At grades 4 and 8, there were higher percentages of students at or above *Basic* from schools in urban fringe/large town locations and in rural/small town locations than from schools in central cities. No differences among the locations in terms of percentages of students at or above the *Basic* level were seen at grade 12.

Table 3.5

Percentage of students at or above achievement levels in writing by type of location: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Central city	19	81	19	1
Urban fringe/large town	14	86	27	2
Rural/small town	14	86	23	1
Grade 8				
Central city	20	80	22	1
Urban fringe/large town	12	88	32	2
Rural/small town	15	85	24	1
Grade 12				
Central city	22	78	22	1
Urban fringe/large town	20	80	24	1
Rural/small town	23	77	19	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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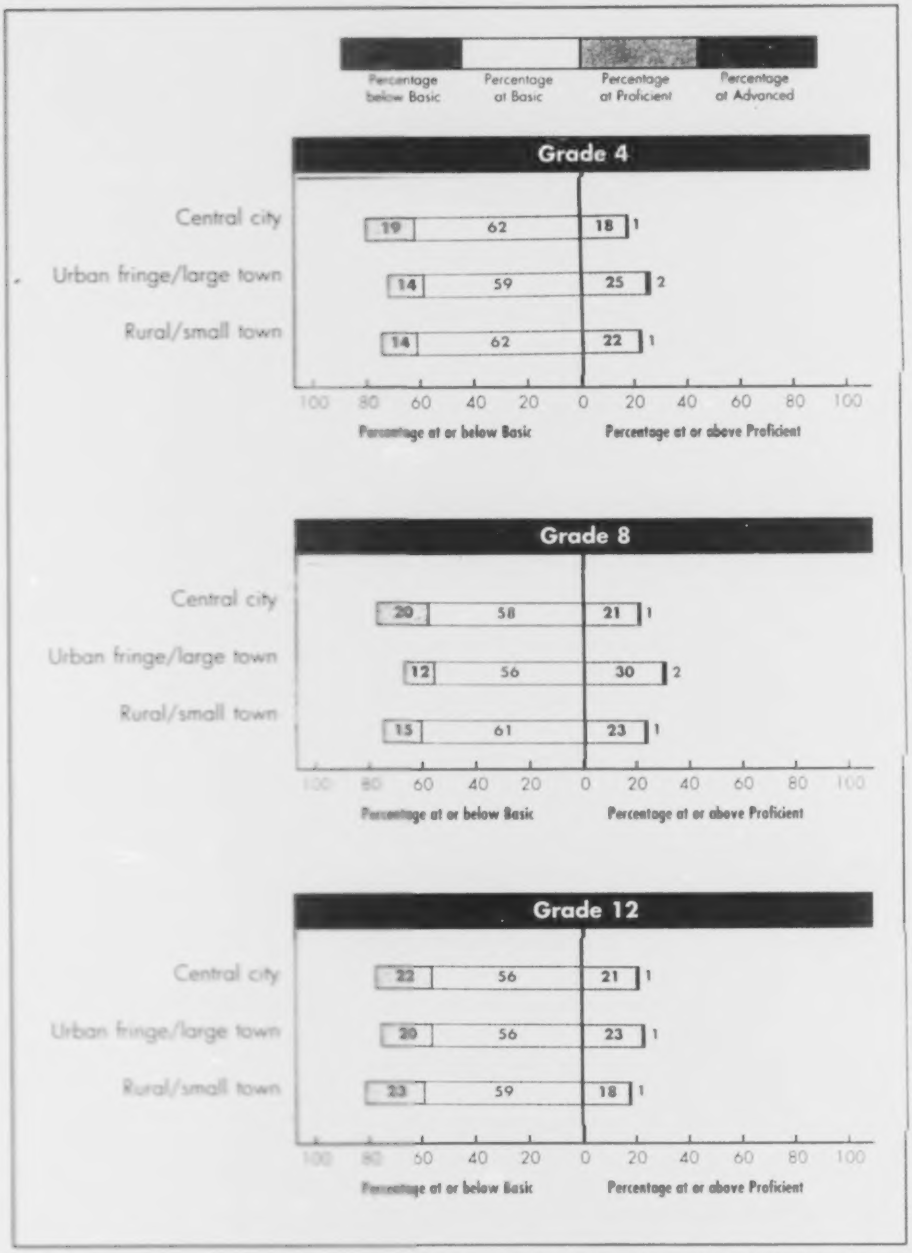
Figure 3.5

Percentage of students within each achievement level range in writing by type of location: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Eligibility for the Free/Reduced-Price School Lunch Program

Table 3.6 and Figure 3.6 present achievement level results for each grade by students' eligibility for the Free/Reduced-Price School Lunch component of the National School Lunch Program (NSLP), an indicator of poverty.

Across the three grades, higher performance was observed for students who were eligible for the program, except at the *Advanced* level at grade 12, where there were too few students to make the comparison. For example, as seen in both Table 3.6 and Figure 3.6, among fourth graders who were eligible for the program because of poverty, 28 percent were below the *Basic* level and 0 percent were at the *Advanced* level, compared to 10 percent and 2 percent, respectively, for those not eligible for the program.

Table 3.6

Percentage of students at or above achievement levels in writing by Free/Reduced-Price School Lunch Program eligibility: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Eligible	28	72	9	0
Not eligible	10	90	30	2
Information not available	12	88	30	2
Grade 8				
Eligible	29	71	10	0
Not eligible	10	90	33	1
Information not available	12	88	34	2
Grade 12				
Eligible	36	64	8	0
Not eligible	19	81	23	1
Information not available	18	82	26	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 3.6

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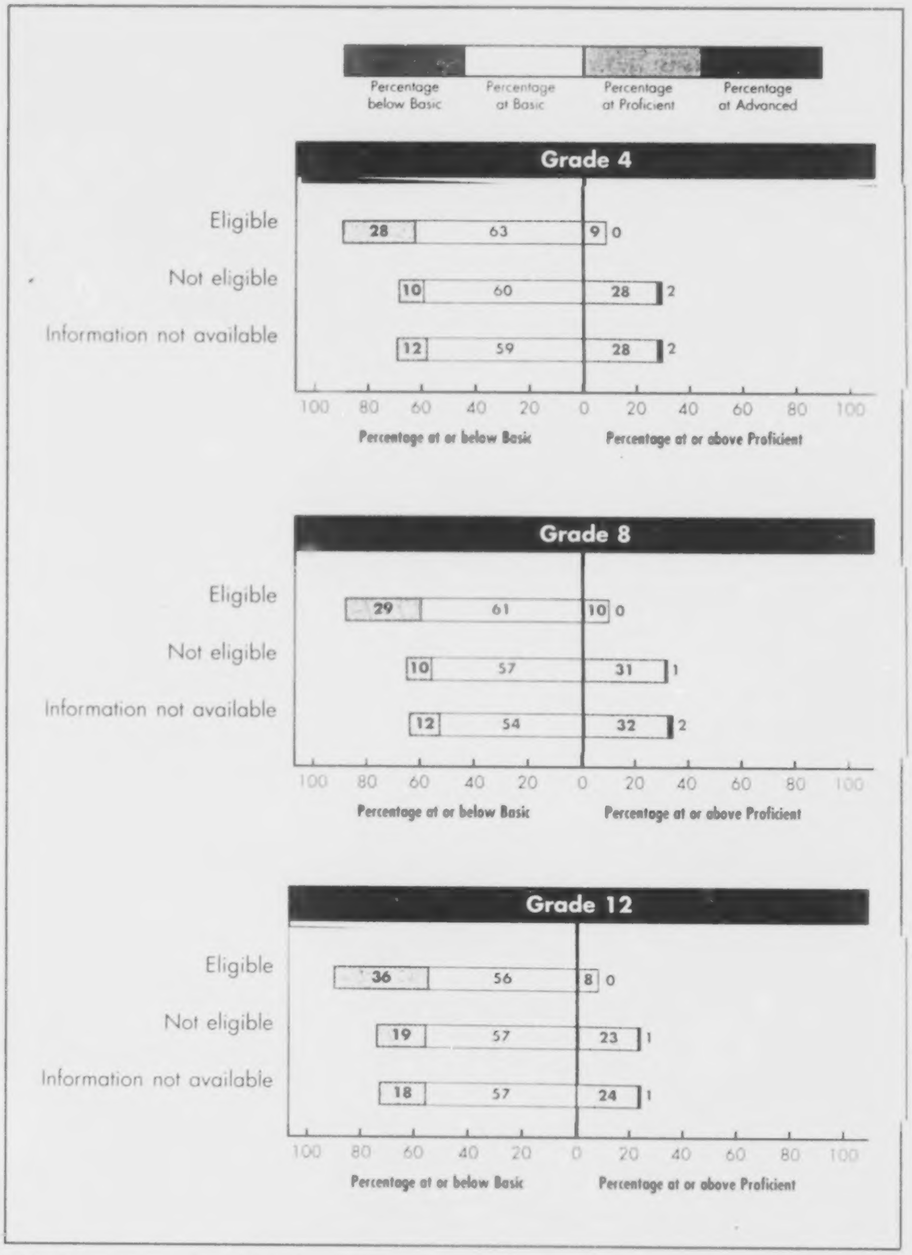
Percentage of students within each achievement level range in writing by Free/Reduced-Price School Lunch Program eligibility: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Type of School

The percentages of public and nonpublic school students at all three grades who were at or above each of the achievement levels are shown in Table 3.7. Shown in Figure 3.7 are the percentages of students within each achievement level range by type of school.

At all three grades, there were higher percentages of students attending nonpublic schools at or above *Basic*, at or above *Proficient*, and at *Advanced* than there were public school students. There were no significant differences at any grade between students in Catholic schools and those in other nonpublic schools in terms of percentages at or above *Basic* and *Proficient* and at the *Advanced* achievement level.

Table 3.7

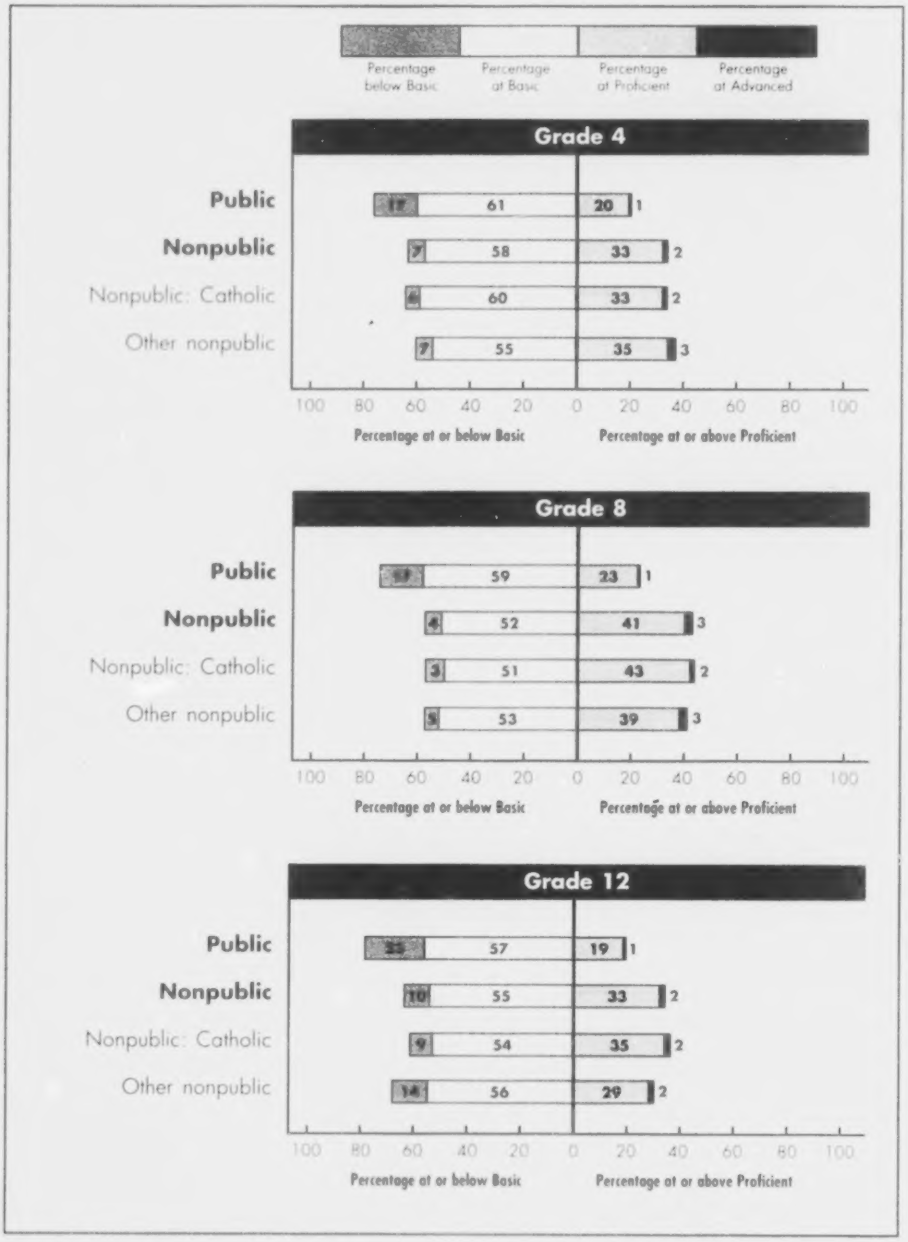
Percentage of students at or above achievement levels in writing by type of school: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
		Grade 4		
Public	17	83	22	1
Nonpublic	7	93	35	2
Nonpublic: Catholic	6	94	34	2
Other nonpublic	7	93	38	3
		Grade 8		
Public	17	83	24	1
Nonpublic	4	96	44	3
Nonpublic: Catholic	3	97	46	2
Other nonpublic	5	95	42	3
		Grade 12		
Public	23	77	20	1
Nonpublic	10	90	35	2
Nonpublic: Catholic	9	91	37	2
Other nonpublic	14	86	30	2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 3.7

Percentage of students within each achievement level range in writing by type of school: 1998



NOTE: Percentages may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Summary

This chapter presented achievement level results for selected subgroups of fourth, eighth, and twelfth graders in the 1998 writing assessment. The major findings reported in this chapter are summarized below.

- Gender: At all three grade levels, higher percentages of female students than male students were at or above the *Basic* and *Proficient* achievement levels and at the *Advanced* level.
- Race/ethnicity: At all three grades, higher percentages of White students and Asian/Pacific Islander students were at or above the *Basic* and *Proficient* achievement levels than Black students and Hispanic students. At grade 4, there were higher percentages of Asian/Pacific Islander students than White students at or above the *Basic* level and at or above *Proficient*.
- Parental education: Higher percentages of fourth, eighth, and twelfth graders who reported that at least one parent had graduated from college were at or above the *Proficient* achievement level than those who reported lower levels of parental education or who reported that they did not know their parents' educational level.
- Region: In terms of percentages at or above the *Proficient* achievement level, fourth- and eighth-grade students in the Northeast and Central regions outperformed their peers in the Southeast and the West, and students in the three other regions outperformed those in the Southeast region at grade 12.
- Type of location: At grades 4 and 8, but not at grade 12, higher percentages of students in urban fringe/large town locations were at or above the *Basic* and *Proficient* achievement levels than their peers in central cities. At grades 8 and 12, higher percentages of students from schools in urban fringe/large town locations were at or above the *Proficient* level than students from schools in rural/small town locations.
- Free/Reduced-Price School Lunch eligibility: Students who were not eligible for the Free/Reduced-Price School Lunch component of the National School Lunch Program had higher levels of achievement than students who, because of poverty, were eligible for that program.
- Type of School: At all three grades, there were higher percentages of students attending nonpublic schools at or above the *Basic* and *Proficient* achievement levels and at the *Advanced* level than their peers attending public schools.

CHAPTER 4

Writing in School, Home Factors, and Writing Performance

Overview

By learning to write well, students can become better thinkers, learners, and communicators. Given the power of writing as a tool for learning and communication, it is important to examine practices in school and conditions in the home in relation to student writing achievement. This chapter explores writing activities in school, home factors such as the presence of reading materials in the home, and their association with student writing performance.

Results from the National Assessment of Educational Progress (NAEP) 1998 writing assessment are presented in relation to students' reports about the writing instruction they received in school and about certain home factors. For each of these contextual variables, the percentages of students providing different responses to each question (for example, writing more than one draft of a paper always, sometimes, or never) and the corresponding average scale scores and achievement level results are presented. This chapter also addresses the frequency of students' planning on the NAEP writing assessment. Results reported in this chapter are for public and nonpublic school students.

Writing In and For School

What sorts of writing activities do students perform in and for school? This section examines a series of student-reported variables: the frequency with which teachers talk with students about their writing, whether students save their writing work in folders or portfolios, and how frequently students write on computers, write drafts, plan their writing, and define the purpose and audience for their writing. This information is based on students' responses to background questions provided as part of the assessment. Some questions were posed only to eighth- and twelfth-grade students, so results for only those two grades are presented in some figures in this chapter.

Some of these variables, as well as additional variables, such as the emphasis teachers place on different aspects of writing in grading student writing, will be treated in greater depth in a forthcoming instructional and policy report. That report will also feature additional teacher- and school-reported information relevant to the teaching of writing and to schools' use of resources.

Frequency with Which Teachers Talk to Students About Student Writing. One means of engaging students with the challenge of communicating their ideas in writing is to discuss their writing with them.[1] Students who participated in the 1998 NAEP writing assessment were asked how often their teachers talk to them about what they are writing. The results are presented in Figure 4.1.

As shown in the figure, the majority of students reported having teachers who spoke with them about their writing. At the fourth grade, 24 percent of students reported that their teachers always spoke with them about their writing, 65 percent reported that their teachers sometimes spoke with them, and 11 percent reported that their teachers never spoke with them about their writing. At both grades 8 and 12, about half of the students reported that their teachers always spoke with them about what they were writing, and more than 40 percent reported that their teachers sometimes spoke with them about what they were writing.

Student writing performance generally was positively associated with teachers talking with their students about their writing. At all three grades, students whose teachers always or sometimes talked to them about their writing had higher scale scores than their peers whose teachers never talked to them about their writing. Additionally, at grades 8 and 12, students whose teachers always talked to them about their writing had higher scale scores than those whose teachers sometimes talked to them about their writing.

---

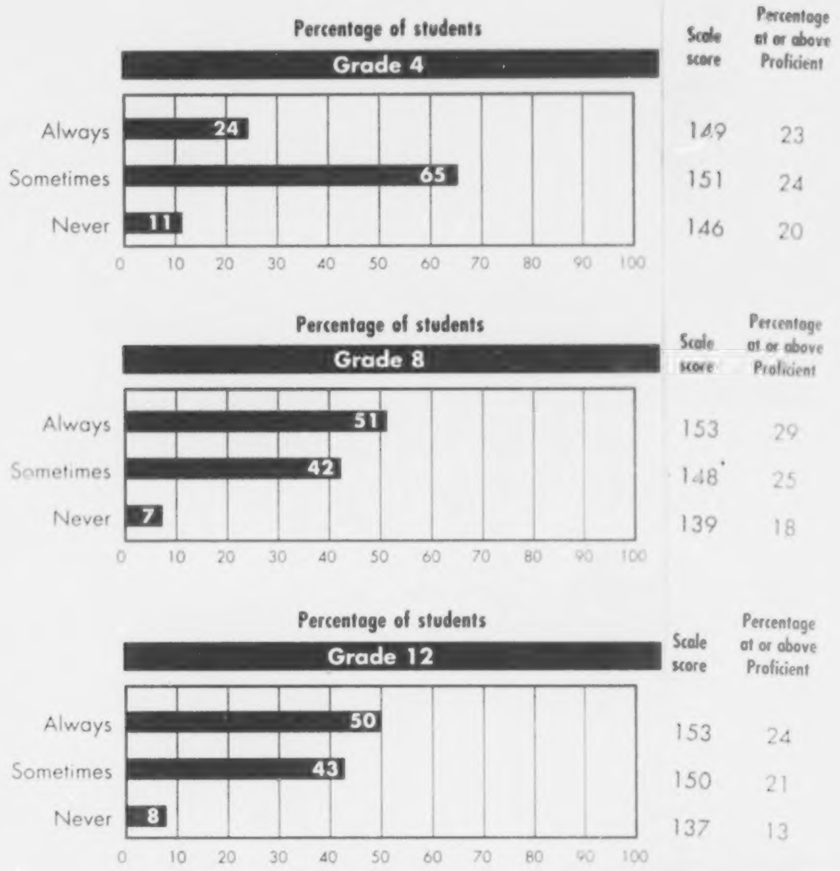
[1] Anson, C.M. (Ed.). (1989). *Writing and response: Theory, practice, and research.* Urbana, IL: National Council of Teachers of English.

Flower, L. & Hayes, J. (1987). On the structure of the writing process. *Topics in language disorders* 7(4), 19–30.

Freedman, S. (1981). Evaluation in the writing conference: An interactive process. In M. Hairston & C. Selfe (Eds.), *Selected papers from the 1981 Texas writing research conference* (pp. 65–96). Austin, TX: The University of Texas at Austin.

Figure 4.1

Students' reports on the frequency with which their teachers talk to them about what they are writing: 1998



	Percentage of students	Scale score	Percentage at or above Proficient
Grade 4			
Always	24	149	23
Sometimes	65	151	24
Never	11	146	20
Grade 8			
Always	51	153	29
Sometimes	42	148*	25
Never	7	139	18
Grade 12			
Always	50	153	24
Sometimes	43	150	21
Never	8	137	13

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Saving Students' Writing Work in Folders or Portfolios. Numerous studies have suggested that saving student writing in portfolios can be a useful means of helping students track their own writing progress over time.[2] Students who took the NAEP 1998 writing assessment were asked whether they or their teachers saved student writing in folders or portfolios. As shown in Figure 4.2, the majority of students at each grade either saved their own written work or had it saved by their teachers in folders or portfolios: 81 percent at fourth grade, 79 percent at eighth grade, and 75 percent at twelfth grade.

Figure 4.2 also indicates a positive relationship between saving work in folders or portfolios and student performance. At all three grades, students who saved, or whose teachers saved, their writing work in folders or portfolios had higher average scale scores than students whose work was not saved.

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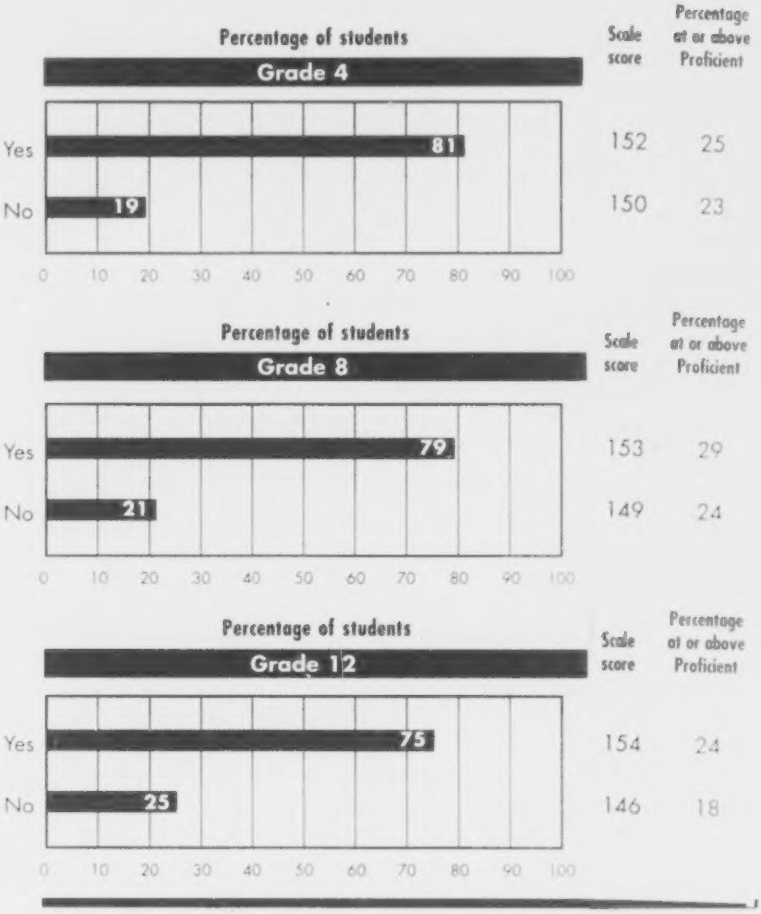
[2] Camp, R. (1993). The place of portfolios in our changing views of writing assessment. In R.E. Bennett & W.C. Ward (Eds.), *Construction vs. choice in cognitive measurement: Issues in constructed response, performance testing, and portfolio assessment* (pp. 183-212). Hillsdale, NJ: Lawrence Erlbaum Associates.

Wolf, D. P. (1989). Portfolio assessment: Sampling student work. *Educational Leadership 46*(7), 35-39.

Yancey, K.B. (Ed.). (1992). *Portfolios in the writing classroom: An introduction.* Urbana, IL: National Council of Teachers of English.

Figure 4.2

Students' reports on whether they or their teachers save their writing work in a folder or portfolio: 1998



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Frequency of Computer Use for Writing. There is currently much debate about the value of students using computers to write. While some educators believe computer use can encourage students to revise their writing, others argue that the effectiveness of computer use in writing depends on the age of the students, the training of their teachers, and the particular ways in which computers are used.[3] Information from students' reports about the frequency of computer use for writing drafts or final versions of stories or reports is presented in Figure 4.3.

How often do students use computers for writing drafts or final versions of stories or reports? According to the figure, at all three grades, more than one-third of students use computers for this purpose at least once a week. Nearly three-fourths of students use computers for this purpose at least once or twice a month — 71 percent at fourth grade, 74 percent at eighth grade, and 77 percent at twelfth grade.

Figure 4.3 also indicates that fourth graders who reported using computers to write drafts or final versions of stories or reports once or twice a month outperformed those students who never or hardly ever used computers for this purpose and those students who used computers for this purpose at least once a week. At grade 4, also, students who never or hardly ever used computers for writing drafts or final versions of stories or reports outperformed students who used computers for this purpose at least once a week. At grade 8, students who used computers to write drafts or final versions of stories or reports once or twice a month outperformed students who used computers for this purpose at least once a week. Finally, at grades 8 and 12, students who used computers for writing drafts or final versions of stories or reports at least once a week or once or twice a month had higher scores than their peers who reported never or hardly ever using computers for this purpose.

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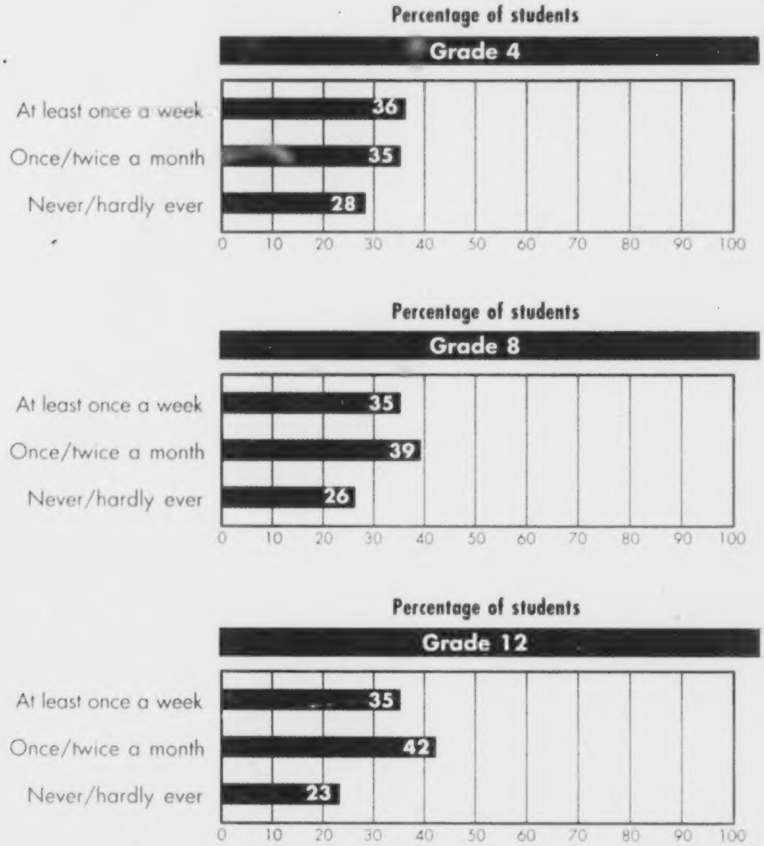
[3] Boone, R. (Ed.). (1989). *Teaching process writing with computers.* Eugene, OR: International Council for Computers in Education.

Bradley, V. (1982). Improving student writing with microcomputers. *Language Arts 59*(7), 732–38.

Shaw, E.L., Jr., Nauman, A.K., & Burson, D. (1994). Comparisons of spontaneous and word processed compositions in elementary classrooms: A three year study. *Journal of Computing in Childhood Education 5*(3/4), 319–27.

Figure 4.3

Students' reports on the frequency with which they use a computer to write drafts or final versions of stories or reports: 1998



Grade 4	Scale score	Percentage at or above Proficient
At least once a week	146	19
Once/twice a month	158	30
Never/hardly ever	153	26

Grade 8	Scale score	Percentage at or above Proficient
At least once a week	151	28
Once/twice a month	158	33
Never/hardly ever	146	21

Grade 12	Scale score	Percentage at or above Proficient
At least once a week	155	28
Once/twice a month	155	25
Never/hardly ever	138	10

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Writing as Process

Research indicates that writing is a recursive process; the mature writer rethinks ideas and ways of expressing those ideas throughout the process of creating a final written piece.[4] Based on this model of writing, many classroom teachers employ a variety of strategies to encourage students to take time to think about their ideas, to plan ways they might express those ideas in writing, and to revise their writing to refine and better express their ideas. The variables examined below provide a context for looking at student writing performance in light of some of these strategies.

Frequency of Writing Drafts. Giving students the opportunity to revisit their written work by asking them to produce more than one draft of a paper can be an effective means of teaching writing as a recursive process. Figure 4.4 presents information about how often students at grades 4, 8, and 12 who took the NAEP 1998 writing assessment were asked to produce more than one draft of a paper.

As shown in the figure, the majority of students reported that their teachers asked them to write more than one draft of a paper at least sometimes. Eighty-one percent of fourth graders, 90 percent of eighth graders, and 89 percent of twelfth graders were asked to write more than one draft of a paper at least sometimes.

Writing more than one draft of a paper was positively associated with student writing achievement at grades 8 and 12. Students at both grades who were always asked to write more than one draft of a paper had higher average scale scores than did their peers who were sometimes or never asked to do so. There was no relationship between student reports of writing more than one draft and student performance at grade 4.

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[4] Applebee, A. (1981). *Writing in the secondary school: English and the content areas.* Urbana, IL: National Council of Teachers of English.

Hillocks, G., Jr. (1986). *Research on written composition: New directions for teaching.* Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills and National Conference on Research in English.

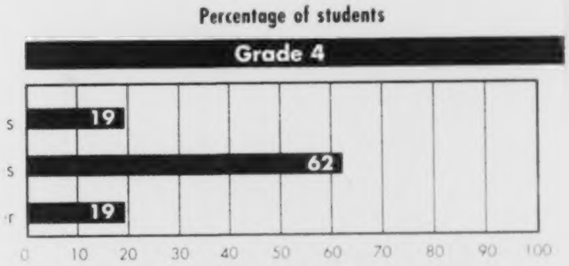
Onore, C. (1989). The student, the teacher, and the text. In C. Anson (Ed.), *Writing and response: Theory, practice, and research.* Urbana, IL: National Council of Teachers of English.

For practitioners who provide ways to teach writing process, see: Atwell, N. (1998). *In the middle: New understandings about writing, reading, and learning.* Portsmouth, NH: Boynton/Cook Publishers, Inc.

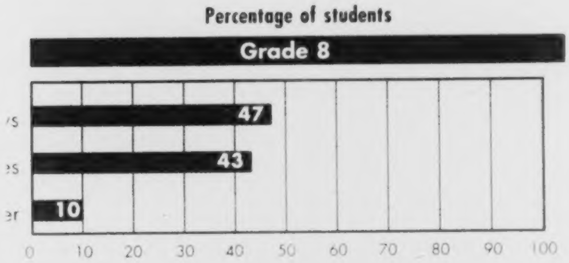
Graves, D. (1994). *A fresh look at writing.* Portsmouth, NH: Heinemann.

Lane, B. (1993). *After the end: Teaching and learning creative revision.* Portsmouth, NH: Heinemann.

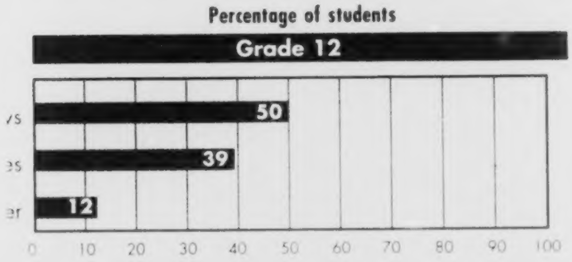
orts on the frequency with which their teachers ask them
· than one draft of a paper: 1998



Scale score	Percentage at or above Proficient
151	26
150	22
151	24



Scale score	Percentage at or above Proficient
156	32
146	22
143	20



Scale score	Percentage at or above Proficient
153	23
148	21
146	20

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Frequency of Planning Writing and of Defining Purpose and Audience. Current notions of writing as process suggest that if students are given the opportunity to think through what it is they want to express and how to express it in their writing, they may become more engaged with the task of writing and better able to express their ideas clearly. Planning includes consideration of the demands of the form to use for writing (essay, letter, or story, for example) and the specific topic or theme the writer wishes to address. At its best, such planning ought to include attention to the purpose and audience for writing; if students are taught that different purposes and audiences for writing require variation in tone and content, they will be in a better position to use writing as a means of exploration and communication.[5]

To reflect good writing practice, students at each grade who took the NAEP 1998 writing assessment received with their test booklets a brochure that provided suggestions for planning and revision. (The brochures for grades 4, 8, and 12 are reprinted in Chapter 6.) They were also given space in their test booklets for planning their writing. During scoring of the NAEP 1998 writing assessment, trained raters noted whether students used the available space for planning for none, one, or two of the 25-minute writing prompts included in their test booklets. Students used a variety of strategies, which raters recorded, including rough drafts, outlines, lists, diagrams (including webs and other graphic organizers), pictures, and multiple forms (which incorporated two or more of the listed categories). The percentages of students who engaged in planning activities on none, one, or two of the prompts on the assessment and the corresponding scale scores are featured in Figure 4.5.

As shown in the figure, at the fourth grade, 47 percent of students planned for at least one of the two prompts in their test booklets. Approximately two thirds of eighth and twelfth graders did planning for at least one of the two prompts in their test booklets. At all three grades, students who engaged in planning in the available space for both writing prompts had higher average scale scores than students who planned for only one or none. In addition, students who planned for one writing prompt on the assessment had higher average scale scores than those who planned for none.

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[5] Pope, C. & Prater, D.L. (1990). Writing proficiency and student use of prewriting/invention strategies. *Reading Research and Instruction, 29*(4), 64–70.

Hillocks, G., Jr. (1986). *Research on written composition: New directions for teaching.* Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills and National Conference on Research in English.

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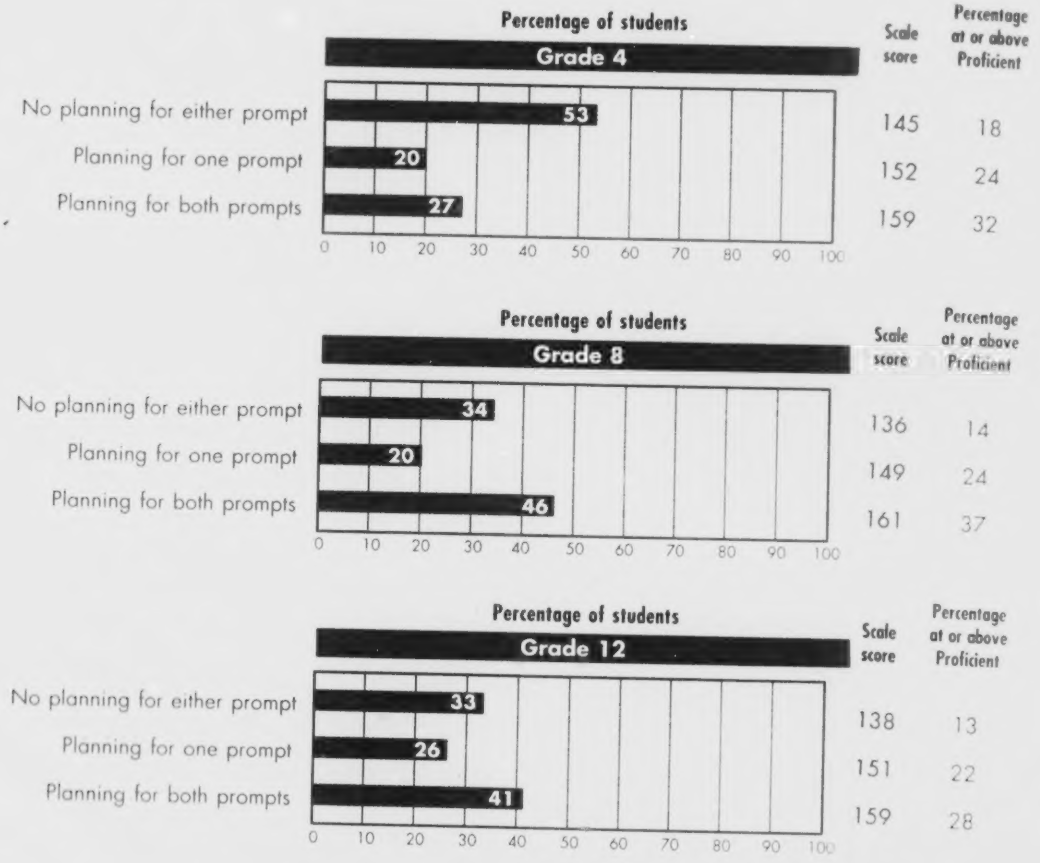
Figure 4.5

Number of occurrences of planning in test booklets* on students' responses to two 25-minute writing prompts: 1998



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*Refers to writing that was visible on the page provided for planning in test booklets.

NOTE: Percentages may not add to 100 due to rounding.

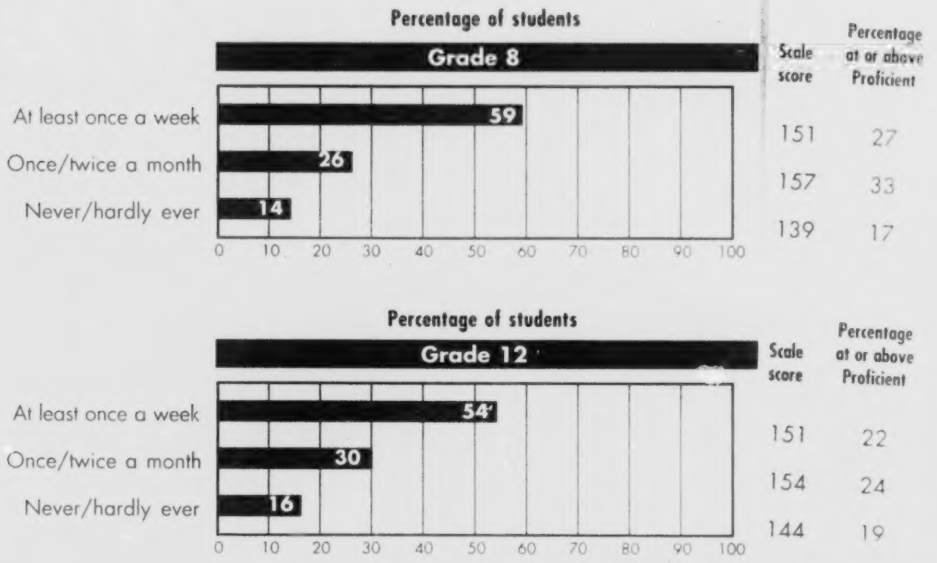
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

What about planning for writing in the classroom? Students at grades 8 and 12 who took the writing assessment were asked how frequently their English teachers ask them to plan their writing. A summary of their responses is presented in Figure 4.6. The majority of students at both grades 8 and 12 were asked to plan their writing at least once a week. At the eighth grade, 59 percent of students were asked by their English teachers to plan their writing at least once a week, and 26 percent were asked to do so once or twice a month. At the twelfth grade, 54 percent of students were asked to plan their writing at least once a week, and 30 percent were asked to do so once or twice a month.

At both grades, students whose teachers asked them to plan writing at least once a week or once or twice a month had higher average scale scores than students whose teachers never or hardly ever asked them to plan their writing. In addition, at both grades 8 and 12, students whose teachers asked them to plan their writing once or twice a month outperformed those whose teachers asked them to plan their writing at least once a week.

Figure 4.6

Students' reports on the frequency with which their English teachers ask them to plan their writing: 1998



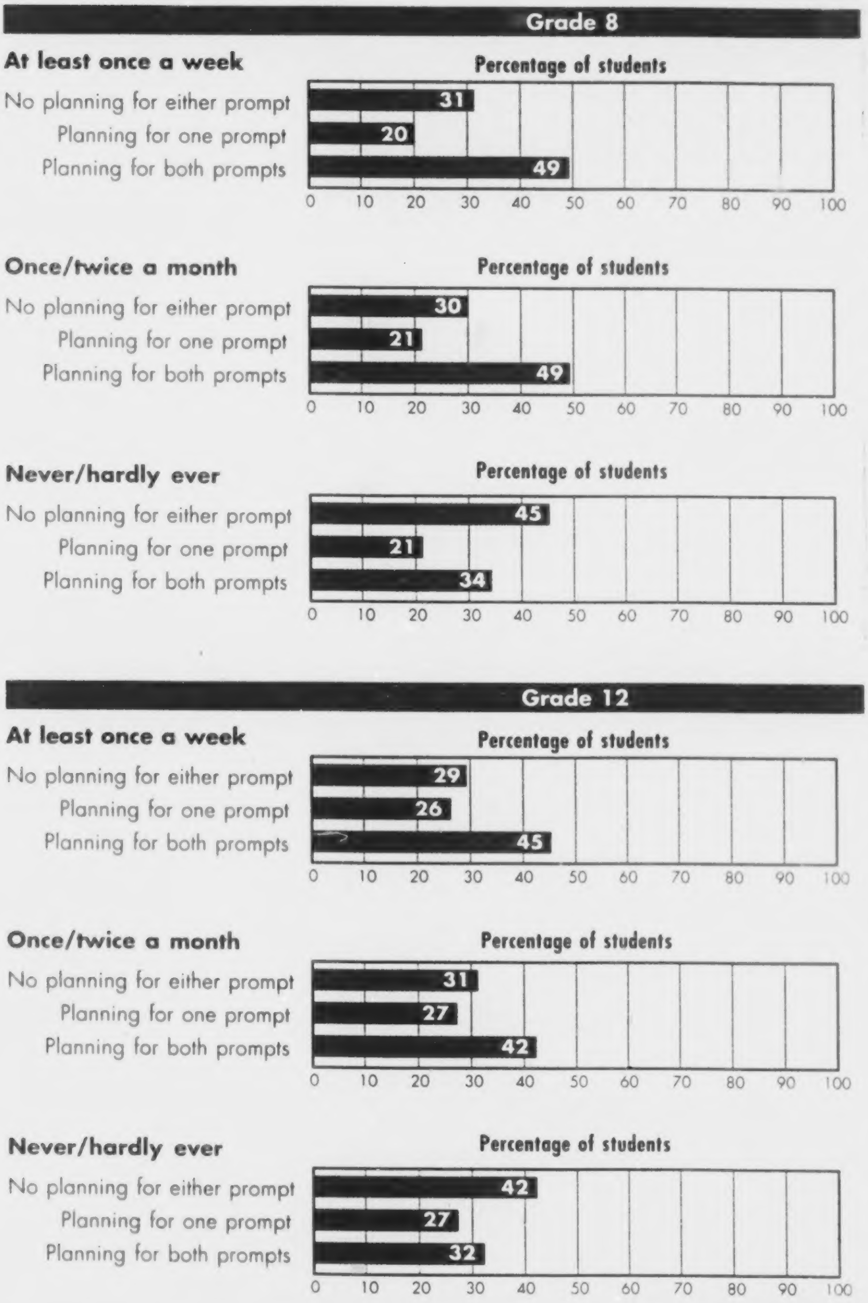
NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Did students accustomed to planning for classroom assignments also do planning on the assessment? The answer is "yes," as shown in Figure 4.7, for students at both grades 8 and 12. At grade 8, for example, 49 percent of students who planned their writing at least once a week or once or twice a month showed visible planning for both prompts on the assessment, while only 34 percent of students who never or hardly ever planned their writing did so on both prompts in the assessment.

Figure 4.7

Frequency of student planning on 25-minute prompts in the assessment* by frequency with which their English teachers ask them to plan their writing, grades 8 and 12: 1998



	Scale score	Percentage at or above Proficient
Grade 8		
At least once a week		
No planning for either prompt	137	15
Planning for one prompt	149	24
Planning for both prompts	161	36
Once/twice a month		
No planning for either prompt	144	18
Planning for one prompt	155	30
Planning for both prompts	166	43
Never/hardly ever		
No planning for either prompt	129	10
Planning for one prompt	141	17
Planning for both prompts	152	27
Grade 12		
At least once a week		
No planning for either prompt	140	14
Planning for one prompt	151	22
Planning for both prompts	158	27
Once/twice a month		
No planning for either prompt	142	14
Planning for one prompt	155	25
Planning for both prompts	163	31
Never/hardly ever		
No planning for either prompt	133	11
Planning for one prompt	147	19
Planning for both prompts	156	28

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*Refers to writing that was visible on the page provided for planning in test booklets.

NOTE: Percentages may not add to 100 due to rounding.

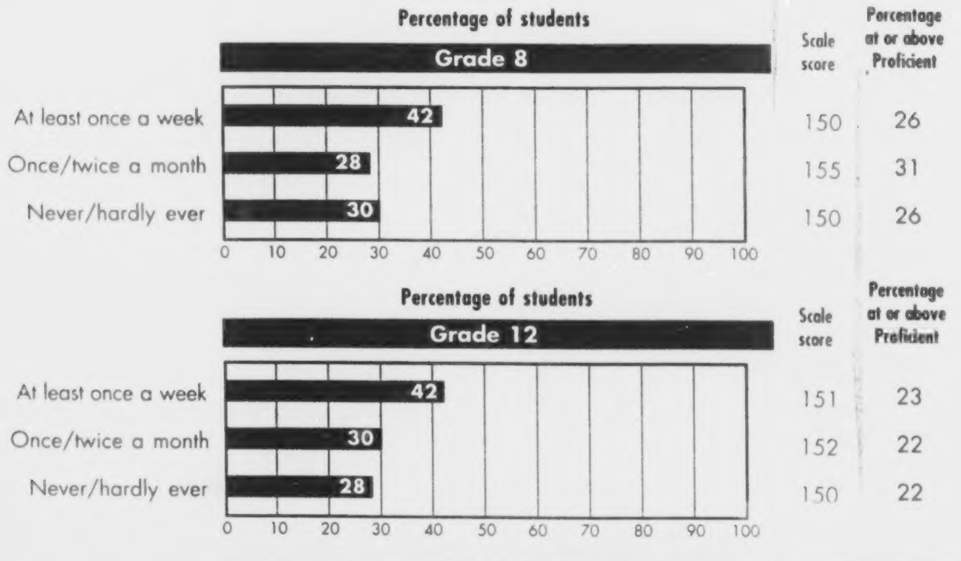
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

As shown in Figure 4.8, students at grades 8 and 12 reported being asked to define the purpose and audience of their writing somewhat less frequently than they were asked to plan their writing. Research indicates that it may be difficult for students to envision an audience other than the teacher in a classroom setting.[6] At both eighth and twelfth grades, 42 percent of students were asked to define their purpose and audience for writing at least once a week. Twenty-eight percent of eighth graders and 30 percent of twelfth graders were asked to do so once or twice a month.

At grade 8, students whose English teachers asked them to define purpose and audience once or twice a month outperformed their peers whose teachers never or hardly ever asked them to do so and those whose teachers asked them to do so at least once a week. There was no relationship between frequency of being asked to define purpose and audience and student performance at grade 12.

Figure 4.8

Students' reports on the frequency with which their English teachers ask them to define their purpose and audience: 1998



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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[6] Kroll, B.M. (1985). Rewriting a complex story for a young reader: The development of audience-adapted writing skills. *Research in the Teaching of English, 19*(2), 120–139.

Oliver, E. (1995). The writing quality of seventh, ninth, and eleventh graders, and college freshmen: Does rhetorical specification in writing prompts make a difference? *Research in the Teaching of English, 29*(4), 422–450.

Strange, R. (1988). *Audience awareness: When and how does it develop?* Bloomington, IN: ERIC Clearinghouse on Reading and Communication Skills.

Home Factors

Previous NAEP assessments in a variety of subjects and recent research have consistently shown that certain home factors are related to student achievement.[7] This section explores two of those variables: number and types of reading materials in the home and frequency with which students discuss their studies with someone at home.

Types of Reading Materials in the Home. Because a relationship has been established between students' reading and writing abilities,[8] the number and types of reading materials found in the home are of particular relevance to students' writing achievement.

Students at all three grades were asked a series of questions about reading materials in the home: Does the family get a newspaper regularly? Is there an encyclopedia at home? About how many books are in the home? Does the family get any magazines regularly? Figure 4.9 presents the percentages of students reporting that their families have all four types of reading materials, three types, or two or fewer types of these materials. Students were counted as having books in the home if they reported more than 25 books in the home.

As indicated in the figure, 38 percent of fourth graders, 51 percent of eighth graders, and 53 percent of twelfth graders reported having all four types of reading materials in the home. At all three grades, the more types of reading materials reported in the home, the higher the average writing scores.

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[7] Campbell, J.R., Voelkl, K.E., & Donahue, P.L. (1997). *NAEP 1996 trends in academic progress.* Washington, DC: National Center for Education Statistics.

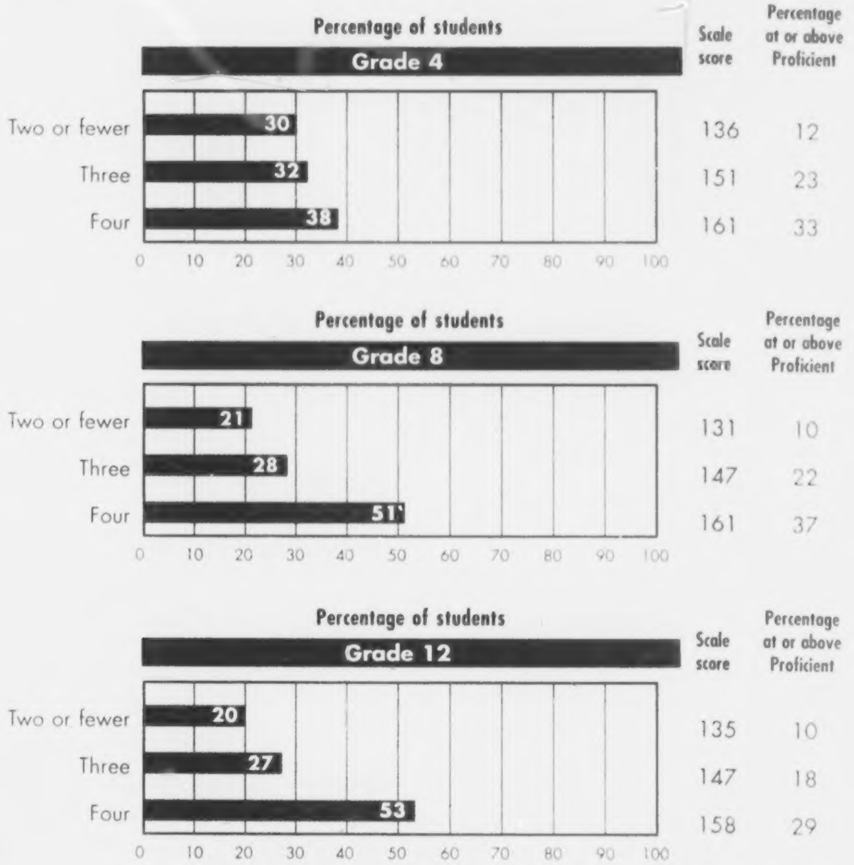
Henderson, A.T. & Berla, N. (Eds.). (1994). *The family is critical to student achievement.* Washington, DC: Center for Law and Education.

[8] Shanahan, T. (Ed.). (1990). *Reading and writing together: new perspectives for the classroom.* Norwood, MA: Christopher-Gordon Publishers, Inc.

Donahue, P.L., Voelkl, K.E., Campbell, J.R., & Mazzeo, J. (1999). *The NAEP 1998 reading report card for the nation and the states.* Washington, DC: National Center for Education Statistics.

Figure 4.9

Students' reports on the presence of four types of reading materials in their home (a newspaper, an encyclopedia, magazines, and more than 25 books): 1998



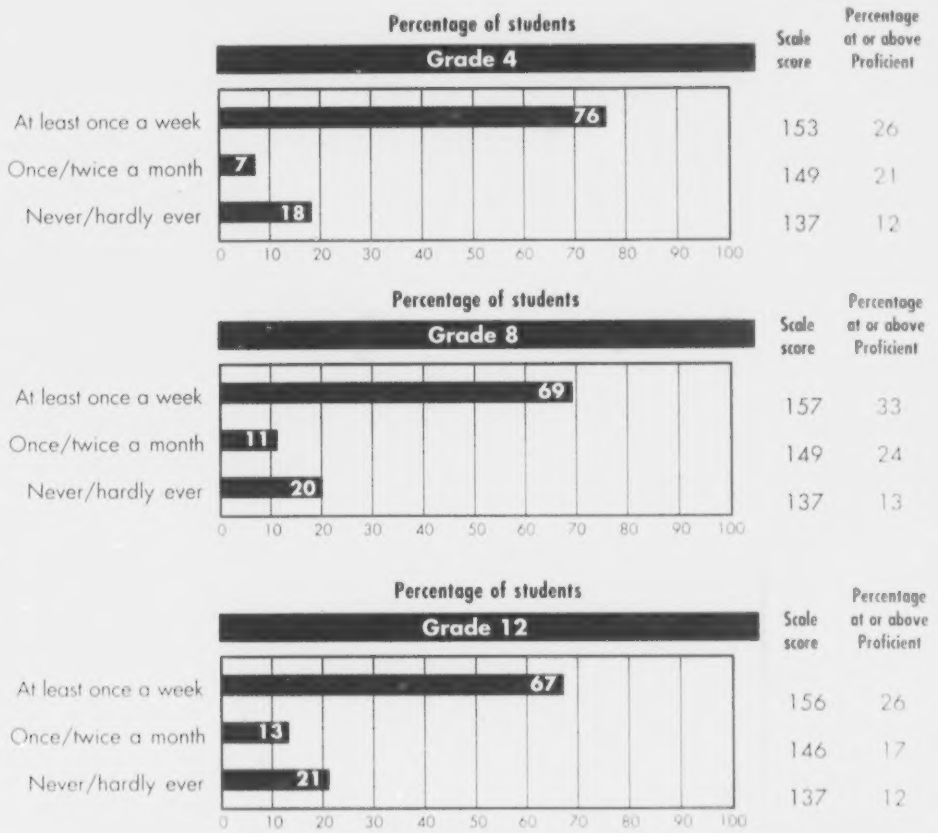
NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Frequency of Discussing Studies at Home. Research studies have demonstrated the positive relationship between students' discussing their schoolwork with someone at home and achievement.[9] Figure 4.10 shows that most students do discuss their studies at home: 76 percent of fourth graders, 69 percent of eighth graders, and 67 percent of twelfth graders reported discussing their studies with someone at home at least once a week. At all three grades, the more frequently students discussed their studies with someone at home, the better their writing scores.

Figure 4.10

Students' reports on the frequency with which they discuss their studies at home: 1998



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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[9] U.S. Department of Education. (1994). *Strong families, strong schools: Building community partnerships for leadership.* Washington, DC: Author.

Summary

The relationship between student responses to NAEP background questions about writing and other literacy-related activities and average scores observed in this chapter cannot be interpreted in a causal sense. Many factors beyond those covered in this chapter may exert an influence on students' writing performance. Furthermore, since the students who participate in the NAEP writing assessment are at different stages of their writing development, it is unlikely that all the contextual factors considered here would exhibit an identical relation to student performance at each of the three grades assessed. As shown by the results of the NAEP 1998 writing assessment, certain instructional practices prove more directly related to writing scores at one grade than at another. The following frequencies of activities and patterns of student writing performance were observed.

- At all three grades assessed, a majority of students reported that their teachers spoke with them about what they were writing at least sometimes. A positive relationship was evident between teachers talking with students about what students were writing and students' writing scores. This was more evident at grades 8 and 12 than at grade 4; at grades 8 and 12, students whose teachers always spoke with them about their writing outperformed their peers whose teachers sometimes spoke with them about their writing.
- At all three grades, most students reported saving their writing work or having their writing work saved by their teachers in a folder or portfolio. There was a positive relationship at all three grades between student writing scores and students saving or having their work saved in folders or portfolios.
- Over one-third of students at all three grades reported using computers for writing drafts or final versions of stories or reports at least once or twice a week. Although the relationship between writing on computers and writing scale scores was mixed, at grades 8 and 12 students who reported doing so once or twice a month had higher average scores than students who reported never or hardly ever doing so.
- A majority of students at all three grades reported at least sometimes being asked to write more than one draft of a paper. While there were no relationships with student scores at grade 4, students at grades 8 and 12 who reported being asked to write more than one draft at least sometimes had higher average scale scores than their peers who were not asked to do so.

- Most students at grades 8 and 12 reported being asked to plan their writing at least once or twice a week. Those students who were asked to plan their writing at least once a week or once or twice a month outperformed their peers who were never or hardly ever asked to do so.

- At all three grades, students who did planning for the prompts on the assessment outperformed those who did not, and those who planned for both prompts they received outperformed those who did so for only one prompt.

- Over two-thirds of students at grades 8 and 12 reported being asked to define a purpose and audience for their writing at least once a week or once or twice a month. At grade 8, students who defined purpose and audience once or twice a month outperformed those who never or hardly ever did so and those who did so at least once a week. There was no relationship between frequency of being asked to define purpose and audience and student performance at grade 12.

- Consistent with the results of past NAEP assessments in a range of subject areas, the more types of reading materials reported to be in the home, the higher the average writing scores at grades 4, 8, and 12. Thirty-eight percent of fourth graders, 51 percent of eighth graders, and 53 percent of twelfth graders reported having all four types of reading materials (a newspaper, an encyclopedia, magazines, and more than 25 books) in the home.

- Also consistent with past NAEP assessments, the more frequently students discussed their studies with someone at home, the better their writing scores. More than two-thirds of students at each grade reported doing so at least once a week.

CHAPTER 5

Average Scale Score and Achievement Level Results for the States

Overview

In addition to the national component of the National Assessment of Educational Progress (NAEP) 1998 assessment in writing, state-by-state assessments were administered at grade 8 in participating states and jurisdictions.[1] This chapter presents average scale scores and achievement level results for public school students in grade 8. The NAEP legislation requires that achievement levels be "used on a developmental basis until the Commissioner of Education Statistics determines . . . that such levels are reasonable, valid, and informative to the public." A discussion of the developmental status of achievement levels may be found in the Introduction.

In addition to presenting overall performance results for students within states, this chapter presents results for selected subgroups of students and also provides cross-state comparisons of average scale scores and the percentages of students within each of the achievement level ranges: below *Basic*, *Basic*, *Proficient*, and *Advanced*. Only the highlights of major findings are discussed in this chapter. Information that provides context for these results is presented in two appendices. Appendix C provides state-by-state information on the percentages of students in each subgroup who participated in the NAEP 1998 writing assessment. Appendix D presents additional contextual state information from non-NAEP sources, including student-teacher ratios and expenditures on education. More performance results for public school students are shown in Appendix E, which provides additional achievement level results for subgroups by state.

For jurisdictions where there were a sufficient number of nonpublic schools that met participation guidelines, results are available for nonpublic school students. These results can be found in the individual reports published separately for each participating jurisdiction and in Appendix F of this report.[2] State sampling procedures and participation rates for both public and nonpublic schools can be found in Appendix A.

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[1] Throughout this chapter, the term *jurisdiction* is used to refer to the states, territories, and Department of Defense Education Activity schools that participated in the 1998 NAEP state-by-state assessment.

[2] NAEP writing state reports are published on the World Wide Web at http://nces.ed.gov/nationsreportcard

Scale Score Results

Table 5.1 shows average scale scores for grade 8 public school students in jurisdictions that participated in the 1998 NAEP writing assessment. Overall, 40 jurisdictions participated in the eighth-grade state-by-state writing assessment. Although Illinois participated, it did not meet minimum school participation guidelines for public schools, so Illinois public school results are not included in this report. Five other jurisdictions, while meeting the minimum school participation guidelines, did not meet more stringent participation rate standards; results for these jurisdictions are included in this report but are noted in the relevant tables and appendices. (Standards for sample participation are described in Appendix A.) Thus, results for eighth-grade public school students are presented for 39 jurisdictions. It should be noted that the average scale scores for the nation, indicated in the tables throughout this chapter, are based on the national sample (not on aggregated state samples) and represent the performance of public school students only. As shown in Table 5.1, average scores for eighth-grade public school students who participated in the state-by-state assessment ranged from 124 to 165.

Differences in writing performance among states and jurisdictions most likely reflect an interaction between the effectiveness of the educational programs within the state or jurisdiction and the challenges posed by economic constraints and student demographic characteristics.

Table 5.1

Average grade 8 scale scores for the states for public schools only: 1998

	Average scale score
Nation	148
States	
Alabama	144
Arizona	143
Arkansas	137
California †	141
Colorado	151
Connecticut	165
Delaware	144
Florida	142
Georgia	146
Hawaii	135
Kentucky	146
Louisiana	136
Maine	155
Maryland	147
Massachusetts	155
Minnesota †	148
Mississippi	134
Missouri	142
Montana †	150
Nevada	140
New Mexico	141
New York †	146
North Carolina	150
Oklahoma	152
Oregon	149
Rhode Island	148
South Carolina	140
Tennessee	148
Texas	154
Utah	143
Virginia	153
Washington	148
West Virginia	144
Wisconsin †	153
Wyoming	146
Other Jurisdictions	
District of Columbia	126
DDESS	160
DoDDS	156
Virgin Islands	124

† Indicates jurisdiction did not meet one or more of the guidelines for school participation

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Figure 5.1 lists the 39 states or jurisdictions that participated in the state writing assessment at grade 8 and met minimum school participation guidelines for public schools. The figure shows the states and jurisdictions divided into three groups: those whose average scores were above the national average, at or around the national average, and below the national average. Note that the national average is for public schools only and is based on the national sample, not on aggregated state samples. Within each group, the states and jurisdictions are presented in alphabetical order.

Figure 5.1

Summary of jurisdiction performance relative to the nation for grade 8 public schools by scale scores: 1998

Higher than the national average	At or around the national average	Lower than the national average
Colorado*	Georgia	Alabama
Connecticut	Kentucky	Arizona
DDESS	Maryland	Arkansas
DoDDS	Minnesota†	California†
Maine	Montana†	Delaware**
Massachusetts	New York†	District of Columbia
Oklahoma	North Carolina	Florida
Texas	Oregon	Hawaii
Virginia	Rhode Island	Louisiana
Wisconsin†	Tennessee	Mississippi
	Washington	Missouri
	Wyoming	Nevada
		New Mexico
		South Carolina
		Utah
		Virgin Islands
		West Virginia

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

* If using a multiple comparison procedure based on 39 jurisdictions, this jurisdiction performed not higher than the national average, but at or around the national average.

**If using a multiple comparison procedure based on 39 jurisdictions, this jurisdiction performed not lower than the national average, but at or around the national average.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: Comparisons of participating jurisdictions to the nation are based on the comparison of each state separately to the nation as a whole. National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Achievement Level Results

Achievement level results for jurisdictions are presented in two ways: in terms of students at or above each achievement level and in terms of students within each achievement level range. Table 5.2 shows the percentages of eighth-grade students at or above the *Basic*, *Proficient*, and *Advanced* achievement levels as well as the percentage of students below the *Basic* level. Note that the levels are cumulative. Included among students who are considered to be at or above *Basic* are those who may have also achieved the *Proficient* and *Advanced* levels of performance, and included among students who are considered to be at or above *Proficient* are those who may have attained the *Advanced* level of performance. For example, Table 5.2 shows that, for public schools in the nation, 83 percent of eighth-grade students performed at or above the *Basic* level, 24 percent at or above the *Proficient* level, and 1 percent at the *Advanced* level. Seventeen percent of eighth-grade students performed below the *Basic* level.

Table 5.2

Percentage of grade 8 students at or above achievement levels for public schools only: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	17	83	24	1
States				
Alabama	17	83	17	0
Arizona	20	80	21	1
Arkansas	23	77	13	0
California †	24	76	20	1
Colorado	14	86	27	1
Connecticut	9	91	44	5
Delaware	20	80	22	1
Florida	22	78	19	1
Georgia	17	83	23	1
Hawaii	28	72	15	1
Kentucky	16	84	21	1
Louisiana	25	75	12	0
Maine	13	87	32	2
Maryland	17	83	23	1
Massachusetts	13	87	31	2
Minnesota †	17	83	25	1
Mississippi	26	74	11	0
Missouri	20	80	17	0
Montana †	14	86	25	1
Nevada	23	77	17	0
New Mexico	21	79	18	1
New York †	16	84	21	0
North Carolina	15	85	27	1
Oklahoma	12	88	25	1
Oregon	17	83	27	1
Rhode Island	17	83	25	1
South Carolina	21	79	15	0
Tennessee	16	84	24	1
Texas	12	88	31	1
Utah	22	78	21	1
Virginia	11	89	27	1
Washington	17	83	25	1
West Virginia	18	82	18	0
Wisconsin †	12	88	28	1
Wyoming	19	81	23	1
Other Jurisdictions				
District of Columbia	37	63	11	1
DDESS	13	87	38	6
DoDDS	11	89	31	1
Virgin Islands	39	61	9	1

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Figure 5.2 lists the 39 states or jurisdictions that participated in the state writing assessment at grade 8 and met minimum school participation guidelines for public schools. In this figure, states and jurisdictions are divided into three groups according to their percentage of students at or above the *Proficient* achievement level: those whose percentages were higher than the national percentage, at or around the national percentage, and lower than the national percentage. Note that the national percentage is for public schools only and is based on the national sample, not on aggregated state samples. Within each group, the states and jurisdictions are presented in alphabetical order.

Figure 5.2

Summary of jurisdiction performance relative to the nation for grade 8 public schools by percentage of students at or above the *Proficient* achievement level: 1998

Higher than the the national percentage	At or around the national percentage	Lower than the national percentage
Connecticut	Arizona	Alabama
DDESS	Colorado	Arkansas
DoDDS	Delaware	California†
Maine	Georgia	District of Columbia
Massachusetts	Kentucky	Florida
Texas	Maryland	Hawaii
Wisconsin†*	Minnesota†	Louisiana
	Montana†	Mississippi
	North Carolina	Missouri
	Oklahoma	Nevada
	Oregon	New Mexico
	Rhode Island	New York†**
	Tennessee	South Carolina
	Virginia	Utah**
	Washington	Virgin Islands
	Wyoming	West Virginia

† Indicates jurisdiction did not meet one or more of the guidelines for school participation

* If using a multiple comparison procedure based on 39 jurisdictions, this jurisdiction's percentage of students at or above *Proficient* was not higher than, but at or around the national percentage

** If using a multiple comparison procedure based on 39 jurisdictions, this jurisdiction's percentage of students at or above *Proficient* was not lower than, but at or around the national percentage

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: Comparisons of participating jurisdictions to the nation are based on the comparison of each state separately to the nation as a whole. National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table. Placement of a state in a category was determined by size of standard errors as well as percentage at or above *Proficient*.

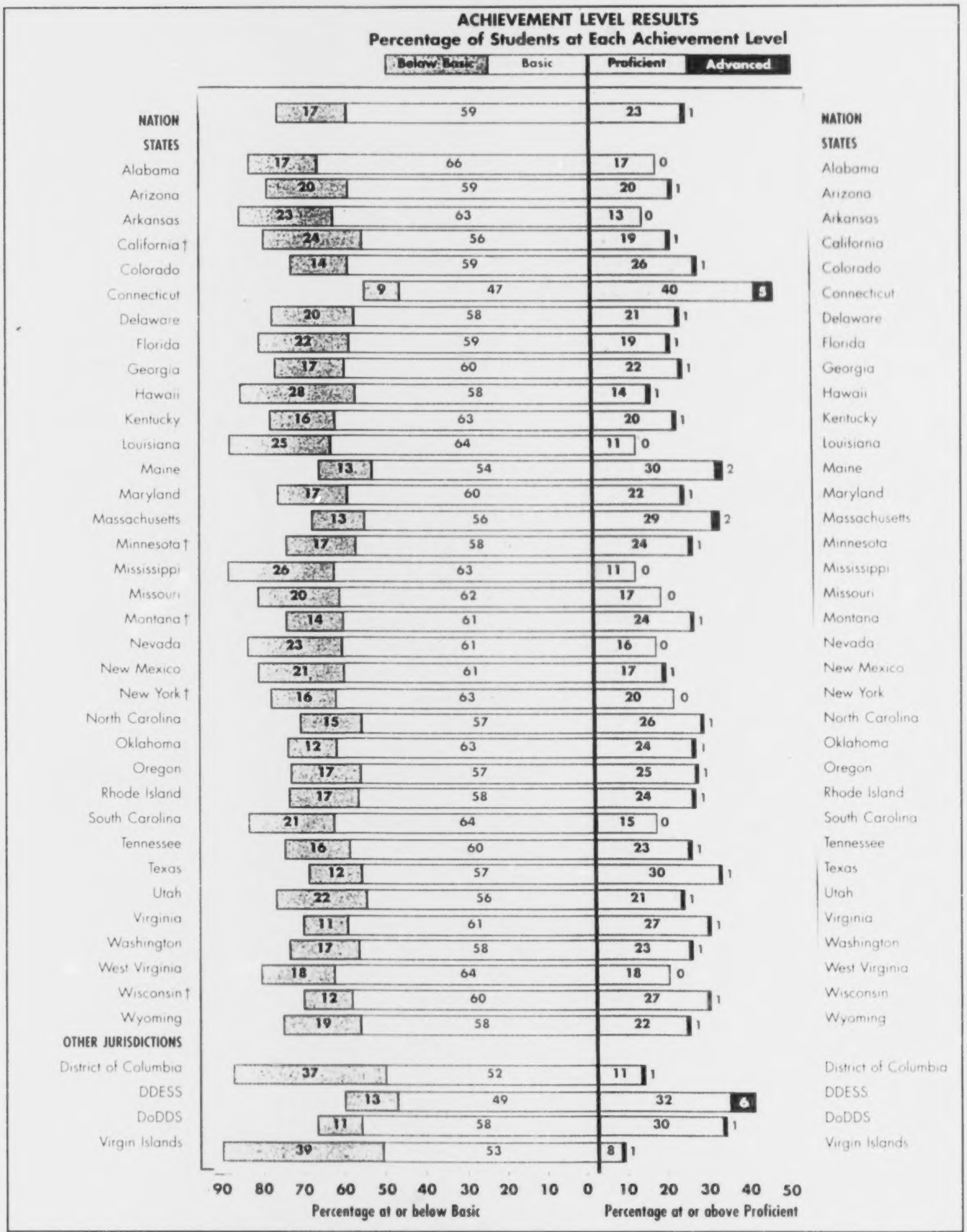
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 5.3 presents the percentages of public school students within each of the achievement level ranges — below *Basic*, *Basic*, *Proficient*, and *Advanced* — in each state or jurisdiction in the 1998 state-by-state writing assessment. The shaded bars in this figure represent achievement level results. Inside the shaded bars, the numbers indicate the percentages of students who attained the specified levels of performance. The sections to the left of the center vertical line represent the proportion of students who were at *Basic* or below *Basic*. The sections of the bars to the right of the vertical line represent the proportion of students who reached the *Proficient* and *Advanced* levels of performance. As an example of how to read this figure, the top bar shows that, for eighth-grade public school students in the nation as a whole, 59 percent were at the *Basic* achievement level, 23 percent at the *Proficient* achievement level, and 1 percent at the *Advanced* achievement level. Seventeen percent performed below the *Basic* achievement level.

The percentages of students at the *Advanced* level ranged from 0 percent to 6 percent. At the *Proficient* level, the percentages ranged from 8 percent to 40 percent. The percentages of students at the *Basic* achievement level ranged from 47 percent to 66 percent. Finally, the percentages of students below the *Basic* level ranged from 9 to 39 percent.

Figure 5.3

Percentage of grade 8 students within each achievement level range for public schools only: 1998



† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools; DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: Numbers may not add to 100 due to rounding. In addition, summing the percentages between two or more categories may not result in the exact cumulative percentage due to rounding. National results are based on the national sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Cross-State Comparisons of Writing Performance

Figures 5.4 and 5.5 indicate whether differences between pairs of participating jurisdictions are statistically significant.[3] Figure 5.4 shows comparisons across states of average scale scores for eighth-grade students. Corresponding comparisons of achievement level results are shown in Figure 5.5.

Figure 5.4 presents comparisons of average scale scores for participating states and other jurisdictions at grade 8. For example, Connecticut is the top row. The second row is the Department of Defense domestic schools (DDESS). The solid dot at the beginning of the second row indicates that DDESS did not differ significantly from Connecticut; these were the two jurisdictions with the highest average scores. The jurisdictions in the next group of rows — the Department of Defense overseas schools (DoDDS), Maine, Massachusetts, and Texas — all had average scale scores lower than Connecticut's, but not significantly different from the average scale score for the Department of Defense domestic schools.

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[3] The significance tests used in these figures are based on the False Discovery Rate (FDR) procedure for multiple comparisons. This procedure takes into account all possible combinations between states in declaring the differences between any two states to be statistically significant. (For further details on the FDR procedure, see Appendix A.)

Figure 5.4

Comparisons of average writing scale scores for grade 8 public schools only: 1998

Instructions: Read across the row for a jurisdiction to compare performance with the jurisdictions listed in the heading of the chart. The symbols indicate whether the average writing scale score of the jurisdiction in each row is higher than, the same as, or lower than the average writing scale score of the jurisdiction listed in the heading. As an example, look at the row beginning with Connecticut. Connecticut's score was about the same as that of the Department of Defense domestic schools, and higher than that of all other jurisdictions listed across the row.

	Connecticut	DoDEA/DDESS	DoDEA/DoDDS	Maine	Massachusetts	Texas	Virginia	Wisconsin †	Oklahoma	Colorado	Montana †	North Carolina	Oregon	Rhode Island	Tennessee	Washington	Minnesota †	Maryland	Georgia	New York †	Kentucky	Wyoming	Delaware	Alabama	West Virginia	Arizona	Utah	Missouri	Florida	New Mexico	California †	Nevada	South Carolina	Arkansas	Louisiana	Hawaii	Mississippi	District of Columbia	Virgin Islands
Connecticut		●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
DoDEA/DDESS	●		●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
DoDEA/DoDDS	▼	●		●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Maine	▼	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Massachusetts	▼	●	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Texas	▼	●	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Virginia	▼	▼	●	●	●	●		●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Wisconsin †	▼	▼	●	●	●	●	●		●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oklahoma	▼	▼	▼	●	●	●	●	●		●	●	●	●	▲	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Colorado	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Montana †	▼	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
North Carolina	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oregon	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Rhode Island	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Tennessee	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Washington	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Minnesota †	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Maryland	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Georgia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
New York †	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Kentucky	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Wyoming	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	▲	●	▲	▲	▲	▲	▲	▲	▲	▲
Delaware	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲
Alabama	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲
West Virginia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	▲	●	▲	▲	▲	▲	▲	▲
Arizona	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	▲	●	▲	▲	▲	▲	▲	▲
Utah	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲
Missouri	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	▲	▲	▲	▲	▲	▲
Florida	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	●	▲	▲	▲	▲	▲	▲
New Mexico	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	▲	▲	▲	▲	▲	▲
California †	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	▲	▲	▲	▲	▲
Nevada	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●		●	●	▲	▲	▲	▲	▲
South Carolina	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	▲	▲	▲	▲	▲
Arkansas	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●		●	●	●	▲	▲
Louisiana	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●		●	●	▲	▲
Hawaii	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●		●	▲	▲
Mississippi	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●		▲	▲
District of Columbia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		●
Virgin Islands	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	

▲ Jurisdiction has statistically significantly higher average scale score than the jurisdiction listed at the top of the chart.

● No statistically significant difference from the jurisdiction listed at the top of the chart.

▼ Jurisdiction has statistically significantly lower average scale score than the jurisdiction listed at the top of the chart.

† Indicates that the jurisdiction did not satisfy one or more of the guidelines for school participation rates.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: The between-jurisdiction comparisons take into account sampling and measurement error and that each jurisdiction is being compared with every other jurisdiction. Significance is determined by the application of a multiple comparison procedure (see Appendix A). Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 5.5 presents comparisons of percentages of eighth-grade students at or above the *Proficient* level in writing for all participating jurisdictions. The two top-performing jurisdictions (the top two rows) were Connecticut and the Department of Defense domestic schools, which did not differ significantly from each other. The jurisdictions in the next group of rows — Maine, the Department of Defense overseas schools, and Massachusetts — had lower percentages of students at or above *Proficient* than Connecticut, but did not differ significantly from the Department of Defense domestic schools.

Figure 5.5

Comparisons of percentages of students at or above *Proficient* for grade 8 public schools only: 1998

Instructions: Read across the row for a jurisdiction to compare performance with the jurisdictions listed in the heading of the chart. The symbols indicate whether the percentage at or above *Proficient* in the jurisdiction in each row is higher than, the same as, or lower than the percentage in the jurisdiction listed in the heading. As an example, look at the row beginning with Connecticut. Connecticut's percentage was about the same as that of the Department of Defense domestic schools, and higher than that of all other jurisdictions listed across the row.

	Connecticut	DoDEA/DDESS	Maine	DoDEA/DoDDS	Massachusetts	Texas	Wisconsin †	Virginia	North Carolina	Colorado	Oregon	Montana †	Rhode Island	Oklahoma	Minnesota †	Washington	Tennessee	Wyoming	Maryland	Georgia	Delaware	Utah	Kentucky	Arizona	New York †	California †	Florida	West Virginia	New Mexico	Missouri	Alabama	Nevada	South Carolina	Hawaii	Arkansas	Louisiana	District of Columbia	Mississippi	Virgin Islands
Connecticut		●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
DoDEA/DDESS	●		●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Maine	▼	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
DoDEA/DoDDS	▼	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Massachusetts	▼	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Texas	▼	▼	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Wisconsin †	▼	▼	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Virginia	▼	▼	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
North Carolina	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Colorado	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oregon	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Montana †	▼	▼	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Rhode Island	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Oklahoma	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Minnesota †	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Washington	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Tennessee	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Wyoming	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Maryland	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Georgia	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Delaware	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Utah	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲
Kentucky	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲
Arizona	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲
New York †	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	▼	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲
California †	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	▼	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲	▲	▲
Florida	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	▲	▲	▲	▲	▲
West Virginia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	▲	▲	▲	▲	▲
New Mexico	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	●	●	▲	▲	▲	▲	▲
Missouri	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	▲	▲	▲	▲	▲
Alabama	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●		●	●	●	●	▲	▲	▲	▲
Nevada	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●	●	●		●	●	●	▲	▲	▲	▲
South Carolina	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●		●	●	▲	▲	▲	▲
Hawaii	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	●	●	●		●	●	▲	▲	▲
Arkansas	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●		●	●	●	●
Louisiana	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●		●	●	●
District of Columbia	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●		●	●
Mississippi	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●		●
Virgin Islands	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	●	●	●	●	

▲ Jurisdiction has statistically significantly higher percentage than the jurisdiction listed at the top of the chart.

● No statistically significant difference from the jurisdiction listed at the top of the chart.

▼ Jurisdiction has statistically significantly lower percentage than the jurisdiction listed at the top of the chart.

† Indicates that the jurisdiction did not satisfy one or more of the guidelines for school participation rates.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: The between-jurisdiction comparisons take into account sampling and measurement error and that each jurisdiction is being compared with every other jurisdiction. Significance is determined by the application of a multiple comparison procedure (see Appendix A). Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Average Scale Score and Achievement Level Results for Selected Subgroups

The following tables present average scale score and achievement level results for the states by gender, race/ethnicity, parents' highest level of education, type of location, and eligibility for the Free/Reduced-Price School Lunch Program. For each subgroup, the percentages of students that participated in the NAEP 1998 writing assessment by jurisdiction are presented in Appendix C.

Average scale scores and the percentages of students reaching the *Proficient* level or higher by gender are given in Table 5.3. For grade 8 students in all participating jurisdictions, the average scale scores of female students were higher than those of male students. The percentage of eighth-grade female students at or above the *Proficient* level of writing achievement was also higher than the percentage of males at or above that achievement level in all of the participating jurisdictions.

Table 5.3

Average grade 8 scale scores and percentage of students at or above the *Proficient* level by gender for public schools only: 1998

	Male		Female	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	138	15	158	34
States				
Alabama	134	9	153	25
Arizona	134	13	153	29
Arkansas	125	6	148	21
California †	133	15	148	25
Colorado	141	16	161	38
Connecticut	156	33	175	55
Delaware	134	13	156	32
Florida	130	11	152	28
Georgia	138	15	156	31
Hawaii	124	7	148	23
Kentucky	135	11	157	30
Louisiana	126	5	144	17
Maine	142	20	168	44
Maryland	136	13	157	33
Massachusetts	144	20	166	44
Minnesota †	134	11	162	39
Mississippi	125	6	143	16
Missouri	130	9	153	27
Montana †	138	14	162	37
Nevada	130	10	149	24
New Mexico	131	10	153	27
New York †	139	13	154	28
North Carolina	140	18	161	37
Oklahoma	142	14	162	36
Oregon	138	15	161	38
Rhode Island	139	17	157	34
South Carolina	130	7	150	24
Tennessee	138	15	157	32
Texas	144	19	165	43
Utah	130	12	155	31
Virginia	144	17	164	39
Washington	136	15	159	34
West Virginia	133	10	155	27
Wisconsin †	141	14	166	43
Wyoming	133	12	160	35
Other Jurisdictions				
District of Columbia	115	5	136	17
DDESS	152	31	168	45
DoDDS	147	21	165	41
Virgin Islands	114	5	131	11

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Average scale scores and the percentages of students at or above the *Proficient* level by racial/ethnic group are shown in Table 5.4. The following discussion pertains to scale scores where sample sizes allow comparisons. Across all participating jurisdictions, White eighth graders had higher average scale scores than their Hispanic peers. White eighth graders had higher average scale scores than their Black peers in all jurisdictions except West Virginia, where the difference was not statistically significant. Also, White students had higher average scale scores than their American Indian peers in all jurisdictions except Nevada and North Carolina, where the differences were not significant.

There were no statistically significant differences between the performance of White and Asian/Pacific Islander students in any jurisdiction except in Minnesota, where White students had higher average scale scores than their Asian/Pacific Islander peers.

Table 5.4

THE NATION'S REPORT CARD naep

Average grade 8 scale scores and percentage of students at or above the *Proficient* level by race/ethnicity for public schools only: 1998

	White		Black		Hispanic		Asian/Pacific Isl.		American Indian	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	156	31	130	7	129	10	157	33	131	8
States										
Alabama	151	23	130	6	125	8	***	***	***	***
Arizona	154	29	122	6	130	10	154	36	128	9
Arkansas	143	17	121	4	116	7	***	***	***	***
California †	156	32	133	11	124	7	160	38	***	***
Colorado	157	32	132	9	132	11	161	37	***	***
Connecticut	173	53	139	15	139	16	***	***	***	***
Delaware	152	29	130	9	132	14	***	***	***	***
Florida	151	27	126	7	135	14	158	36	***	***
Georgia	157	31	132	9	125	10	152	28	***	***
Hawaii	140	19	123	7	120	5	138	17	***	***
Kentucky	149	23	129	7	124	10	***	***	***	***
Louisiana	146	17	123	4	120	5	***	***	***	***
Maine	156	33	***	***	***	***	***	***	***	***
Maryland	157	32	131	7	127	8	164	40	***	***
Massachusetts	161	36	135	9	125	7	160	37	***	***
Minnesota †	152	28	123	9	119	5	135	16	***	***
Mississippi	146	18	124	4	108	1	***	***	***	***
Missouri	146	20	123	4	116	4	***	***	***	***
Montana	153	27	***	***	133	10	***	***	134	15
Nevada	147	22	132	9	123	7	148	19	133	12
New Mexico	153	29	133	12	134	12	***	***	133	11
New York †	158	30	132	7	127	6	149	26	***	***
North Carolina	159	35	134	11	136	21	***	***	140	17
Oklahoma	156	30	134	7	134	8	***	***	143	15
Oregon	152	29	***	***	133	13	157	34	134	14
Rhode Island	154	30	134	12	124	7	142	17	***	***
South Carolina	150	22	128	5	121	5	***	***	***	***
Tennessee	154	28	132	10	122	13	***	***	***	***
Texas	164	41	146	20	144	20	163	41	***	***
Utah	146	24	***	***	120	7	135	15	119	6
Virginia	159	33	140	12	146	17	163	41	***	***
Washington	153	29	131	11	123	9	151	26	127	5
West Virginia	145	19	140	14	117	3	***	***	***	***
Wisconsin †	156	31	141	15	136	12	***	***	***	***
Wyoming	149	25	***	***	131	12	***	***	124	11
Other Jurisdictions										
District of Columbia	156	43	125	10	120	8	***	***	***	***
DDESS	167	46	150	26	153	32	***	***	***	***
DoDDS	161	37	148	22	153	27	158	34	***	***
Virgin Islands	***	***	124	8	118	7	***	***	***	***

*** Sample size is insufficient to permit a reliable estimate

† Indicates jurisdiction did not meet one or more of the guidelines for school participation

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

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Table 5.5 shows average scale scores and the percentages of students at or above the *Proficient* achievement level by parents' highest level of education. The following discussion covers all participating jurisdictions where sample size allows comparison. Students who had at least one parent who graduated from college had higher average scale scores than students whose parents did not graduate from high school, except in one case. The exception was the District of Columbia, where the difference was not statistically significant.

In most participating jurisdictions where sample size allows comparisons, students whose parent or parents graduated from college had higher average scale scores than students whose parent or parents graduated from high school. The exceptions were Alabama, Louisiana, the District of Columbia, the Department of Defense overseas schools, and the Virgin Islands.

Finally, in most jurisdictions, students whose parents graduated from high school had higher average scale scores than students whose parents did not. The exceptions were Arkansas, Delaware, Hawaii, Louisiana, Mississippi, New Mexico, South Carolina, Tennessee, Virginia, Wyoming, and the District of Columbia.

Table 5.5

THE NATION'S REPORT CARD naep

Average grade 8 scale scores and percentage of students at or above the *Proficient* level by parents' highest level of education for public schools only: 1998

	Graduated from college		**Some education after high school**		**Graduated from high school**		**Did not finish high school**		**I don't know.**	
	Average scale score	**Percentage at or above Proficient**	**Average scale score**	**Percentage at or above Proficient**	**Average scale score**	**Percentage at or above Proficient**	**Average scale score**	**Percentage at or above Proficient**	**Average scale score**	**Percentage at or above Proficient**
Nation	156	33	143	19	144	18	128	6	117	3
States										
Alabama	149	23	140	12	145	15	127	7	***	***
Arizona	155	32	138	14	141	15	119	4	117	2
Arkansas	143	19	135	12	131	9	127	6	120	4
California †	155	32	136	14	134	11	118	5	117	6
Colorado	159	34	147	22	145	18	119	5	116	5
Connecticut	176	57	153	29	159	33	134	11	135	16
Delaware	151	30	141	18	142	19	128	10	114	4
Florida	148	25	138	15	140	19	128	6	124	9
Georgia	155	31	140	15	140	16	129	7	***	***
Hawaii	142	20	131	11	132	12	122	7	122	6
Kentucky	156	31	142	15	143	17	131	12	125	8
Louisiana	141	16	132	8	136	11	129	7	***	***
Maine	162	40	150	25	150	26	***	***	***	***
Maryland	155	31	141	15	139	13	***	***	***	***
Massachusetts	165	42	144	19	145	22	129	7	***	***
Minnesota †	155	32	143	18	141	16	***	***	***	***
Mississippi	139	15	129	7	133	7	129	5	***	***
Missouri	151	25	136	12	138	14	125	6	114	4
Montana †	156	31	147	21	141	16	***	***	***	***
Nevada	148	23	139	15	134	10	123	9	114	5
New Mexico	150	26	140	15	136	13	126	5	118	5
New York †	153	28	143	16	142	14	125	8	131	7
North Carolina	159	36	144	20	141	17	128	7	***	***
Oklahoma	159	33	148	20	145	17	134	8	***	***
Oregon	158	36	146	22	138	15	126	11	123	4
Rhode Island	157	33	145	21	141	16	123	6	131	12
South Carolina	145	20	135	10	138	12	133	8	***	***
Tennessee	155	33	144	19	144	17	135	11	***	***
Texas	162	39	151	28	152	27	140	13	127	6
Utah	149	27	139	17	134	13	***	***	***	***
Virginia	162	39	146	18	145	15	135	9	***	***
Washington	157	33	142	17	144	20	117	7	112	1
West Virginia	153	27	140	14	138	12	125	6	128	10
Wisconsin †	158	34	151	25	149	22	***	***	***	***
Wyoming	152	29	142	19	138	16	128	11	***	***
Other Jurisdictions										
District of Columbia	132	16	125	9	129	10	131	9	***	***
DDESS	163	39	158	37	***	***	***	***	***	***
DoDDS	160	35	154	29	150	23	***	***	***	***
Virgin Islands	124	8	124	8	124	8	***	***	***	***

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table 5.6 shows state writing assessment results by type of location. The three categories of location — central city, urban fringe/large town, and rural/small town — are based on Census Bureau definitions of metropolitan statistical areas, population size, and density. These classifications are based solely on geographic characteristics and are described in Appendix A.

The following discussion pertains to jurisdictions where sample sizes permitted comparisons. In eight states — Connecticut, Georgia, Maryland, Massachusetts, Minnesota, New York, Rhode Island, and Virginia — students from schools in urban fringe/large town locations had higher average scale scores than those from schools located in central cities. In addition, in six of those eight states (excepting Georgia and Virginia), students from schools in rural/small town locations had higher average scale scores than their counterparts from schools in central city locations. Students from urban fringe/large town schools had higher average scale scores than their counterparts in rural/small town schools in Arizona, Georgia, South Carolina, and Virginia. Students from schools in central cities had higher average scale scores than their counterparts from schools in rural/small town locations in New Mexico, South Carolina, and West Virginia.

Table 5.6

Average grade 8 scale scores and percentage of students at or above the *Proficient* level by type of location for public schools only: 1998

	Central city		Urban fringe/ large town		Rural/ small town	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	141	19	153	29	148	23
States						
Alabama	145	19	147	19	142	16
Arizona	142	20	149	26	137	13
Arkansas	138	15	142	17	135	12
California †	139	20	142	21	***	***
Colorado	146	24	154	29	151	27
Connecticut	142	20	169	47	176	56
Delaware	144	23	144	22	144	22
Florida	141	19	143	20	136	15
Georgia	141	18	152	27	141	18
Hawaii	141	19	133	13	133	13
Kentucky	148	23	144	19	146	21
Louisiana	132	11	135	10	139	13
Maine	155	33	152	31	155	32
Maryland	130	11	150	25	151	25
Massachusetts	140	18	160	37	160	35
Minnesota †	128	13	153	29	148	24
Mississippi	135	13	138	15	132	9
Missouri	137	15	145	19	141	18
Montana †	146	19	146	21	152	28
Nevada	139	16	141	18	139	15
New Mexico	147	24	142	18	137	14
New York †	134	11	156	30	153	24
North Carolina	155	33	150	26	147	24
Oklahoma	148	23	150	24	154	27
Oregon	149	29	152	29	146	23
Rhode Island	136	14	154	30	154	30
South Carolina	145	19	144	18	133	10
Tennessee	144	22	152	28	149	23
Texas	152	29	159	36	153	29
Utah	139	19	145	23	141	20
Virginia	148	21	161	36	149	23
Washington	145	22	151	28	145	22
West Virginia	149	24	149	24	141	16
Wisconsin †	150	25	155	30	154	29
Wyoming	149	25	***	***	144	22
Other Jurisdictions						
District of Columbia	126	11	***	***	***	***
DDESS	158	37	167	44	161	39
DoDDS	***	***	***	***	***	***
Virgin Islands	***	***	***	***	124	9

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table 5.7 shows state writing assessment results by eligibility for the Free/Reduced-Price School Lunch Program. For all jurisdictions where sample sizes permitted comparison, except in two cases, students who were not eligible for the Free/Reduced-Price School Lunch Program had higher average scale scores than those who were eligible. The exceptions were the Department of Defense overseas schools and Department of Defense domestic schools.

Table 5.7

THE NATION'S REPORT CARD naep

Average grade 8 scale scores and percentage of students at or above the *Proficient* level by Free/Reduced-Price School Lunch Program eligibility for public schools only: 1998

	Eligible		Not eligible	
	Average scale score	**Percentage at or above Proficient**	**Average scale score**	**Percentage at or above Proficient**
Nation	131	10	156	32
States				
Alabama	131	6	153	25
Arizona	129	9	152	28
Arkansas	122	5	145	18
California †	121	6	155	30
Colorado	132	11	158	32
Connecticut	139	15	172	51
Delaware	127	10	152	28
Florida	129	9	152	27
Georgia	130	8	155	29
Hawaii	123	8	142	19
Kentucky	133	11	155	28
Louisiana	127	5	146	18
Maine	139	15	160	38
Maryland	127	6	155	30
Massachusetts	131	8	162	39
Minnesota †	127	10	154	29
Mississippi	124	4	144	18
Missouri	127	7	148	22
Montana †	138	15	155	30
Nevada	124	7	146	21
New Mexico	130	9	150	26
New York †	131	8	156	29
North Carolina	132	11	160	36
Oklahoma	142	15	158	31
Oregon	133	13	155	32
Rhode Island	131	10	155	31
South Carolina	126	5	149	22
Tennessee	135	12	154	30
Texas	141	17	163	40
Utah	130	13	146	23
Virginia	136	9	159	33
Washington	128	10	154	29
West Virginia	132	9	152	25
Wisconsin †	141	16	157	33
Wyoming	136	16	149	26
Other Jurisdictions				
District of Columbia	120	7	141	22
DDESS	157	35	162	40
DoDDS	156	32	155	30
Virgin Islands	123	9	***	***

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Summary

This chapter presented the scale score and achievement level results for eighth-grade public school students in the jurisdictions that participated in, and met participation guidelines for, the NAEP 1998 writing state-by-state assessment. In addition to presenting the average scale scores and the percentage of students at or above the *Proficient* level for each participating jurisdiction, comparisons across jurisdictions were presented for these results. The chapter concluded with a consideration of the performance of five selected subgroups of students: by gender, race/ethnicity, parents' highest level of education, type of location, and eligibility for the Free/Reduced-Price School Lunch Program.

Results are presented for 39 jurisdictions. Those results include the following:

- The jurisdictions with the highest average scale scores, as well as the highest percentages of students at or above the *Proficient* level, were Connecticut and the Department of Defense Domestic Schools. The next-highest scores were observed in a cluster of jurisdictions that included the Department of Defense overseas schools, Maine, Massachusetts, and Texas. These jurisdictions, with the exception of Texas, also comprised the cluster of states with the next-highest percentage of students at or above the *Proficient* achievement level. Readers are reminded that differences among states and jurisdictions may be explained by a wide variety of factors, including socioeconomic variables.
- Females had higher average scale scores than males in every jurisdiction. There were also higher percentages of females than males at or above *Proficient* in every jurisdiction.
- There were no statistically significant differences between the performance of White students and Asian/Pacific Islander students in jurisdictions where sample sizes permitted comparison, except in Minnesota, where White students had higher average scale scores than their Asian/Pacific Islander peers. White students had higher average scale scores than Hispanic students in every jurisdiction where sample size permitted comparison. White students had higher average scale scores than Black students in every jurisdiction where sample size permitted comparison, except West Virginia, where the difference was not statistically significant.

- Students who reported that at least one parent graduated from college had higher average scale scores than students who reported that their parents did not graduate from high school in every participating jurisdiction where sample size permitted comparison except the District of Columbia, where that difference was not significant. Students with at least one parent who graduated from high school had higher average scale scores than students whose parents did not graduate from high school in 19 participating jurisdictions where sample sizes permitted comparison.

- In eight participating jurisdictions, students from schools in urban fringe/large town locations had higher average scale scores than their counterparts from schools in central cities; in six of those eight jurisdictions, students from schools in rural/small town locations also had higher average scale scores than their counterparts from schools in central cities. Students from schools in central cities had higher average scale scores than their peers from schools in rural/small town locations in New Mexico, South Carolina, and West Virginia.

- In every jurisdiction where sample size permitted comparison, except the Department of Defense domestic schools and the Department of Defense overseas schools, students who were not eligible for the Free/Reduced-Price School Lunch Program had higher average scale scores than those who were eligible for that program.

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CHAPTER 6

MORE STUDENT RESPONSES

Additional Sample Student Responses from the 1998 NAEP Writing Assessment

Overview

The nine 1998 NAEP writing assessment prompts that have been released for publication are presented in Chapter 1 of this report. That chapter used exemplar student responses to illustrate the three achievement levels, *Basic*, *Proficient*, and *Advanced*. This chapter is designed to provide more information about the evaluation of student responses.

The chapter begins with information about the performance of students at the three grades assessed (4, 8, and 12) on narrative, informative, and persuasive writing. It then shows the scoring guides that were used to evaluate student responses. The chapter then presents samples of student responses rated at each of the six levels on the scoring guides, to illustrate the full range of student responses. Those responses are given for a fourth-grade narrative prompt, an eighth-grade informative prompt, and a twelfth-grade persuasive prompt.

All students who took the assessment were given brochures that provided suggestions for planning and reviewing their writing. The writing brochures for grades 4, 8, and 12 are reprinted in this chapter, following the presentation of student responses. This chapter concludes with item maps that show where different levels of performance on the nine released writing prompts fall on the NAEP writing scale.

Overall Ratings on the Writing Assessment

In addition to examining how student writing was scored, it may be useful to see, for all the 25-minute prompts in the assessment, the percentage of students' responses rated at each of the six levels on the scoring guide. As Table 6.1 shows, 53 percent of fourth-grade responses, 57 percent of eighth-grade responses, and 69 percent of twelfth-grade responses received ratings in the upper half of the scoring guide ("Sufficient" or better).

Table 6.1

THE NATION'S REPORT CARD naep

Percentage of responses rated at different levels on the scoring guides on all 25-minute writing prompts: 1998

	Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
Grade 4						
Overall	4	11	33	38	12	3
Narrative	2	10	29	38	16	4
Informative	3	10	38	37	9	2
Persuasive	4	9	30	44	10	2
Grade 8						
Overall	3	11	29	41	13	3
Narrative	2	11	26	39	17	5
Informative	3	9	29	45	11	3
Persuasive	4	10	32	40	12	2
Grade 12						
Overall	3	8	20	42	23	4
Narrative	2	4	17	45	29	2
Informative	3	6	17	43	26	5
Persuasive	3	11	24	41	17	5

NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

As shown in Table 6.1, in the overall ratings of student responses at each grade, 3 to 4 percent were rated "Excellent," the highest rating on the 6-point scoring guide. As reported in Chapter 1, only 1 percent of students in each grade attained the *Advanced* achievement level in writing. It is worth noting that in order to reach the *Advanced* level, students would have needed to demonstrate *Advanced* performance on both of the 25-minute writing prompts they were assigned.

Narrative, Informative, and Persuasive Writing

Telling a story, writing an informative essay, or writing a persuasive letter have certain things in common: for all, the writer must develop and organize ideas, use language effectively, and be aware of the audience. The writer's task differs for the three kinds of writing, however. By focusing on responses at the "Uneven" (3) level and better, this section describes what students were able to do in each of those kinds of writing for each grade assessed in NAEP.

Narrative Writing: Weaving a Story

How do writers tell a story? The storyteller weaves plot, character, language, and detail into a whole to create the illusion of reality. Prompts like "Castle" (released in this report) presented fourth-grade students with a fairy-tale-like situation. In response, students wrote stories in which the hero or heroine had adventures such as meeting princesses and giants. Other prompts used cartoons, photographs, or drawings to stimulate fourth graders' creativity. In responses rated "Skillful" or "Excellent," fourth graders produced clear stories by writing effective dialogue, creating characters, and creating suspense. Stories rated "Sufficient" provided a clear sequence of events, but sometimes made abrupt shifts in time or place. Such shifts tended to impede the story's progress in students' responses rated "Uneven," even though those writers still attempted a complete story.

Eighth-grade prompts asked students to write many kinds of stories (including first- and third-person narratives), and sometimes to interpret visual or written materials in writing their stories. In general, eighth-grade students provided more developed characters and plots than fourth graders did. In "Skillful" or "Excellent" responses, they used narrative techniques to interweave event and characterization. Precise language made their responses vivid. Eighth-grade narratives rated "Sufficient" were somewhat developed but lacked details. Those rated "Uneven" had the outlines of a story but had repetition that weakened the story line or problems in controlling sentence boundaries (run-on or incomplete sentences).

Twelfth graders were typically asked, for their narratives, to assume the voice of a character or to write in a particular genre. In responses rated "Skillful" or "Excellent," some students used retrospective storytelling, in which a character revealed the past from the point of view of experience (see the student response on pages 48 and 49 of Chapter 1). Others enlivened their tales with humor. The ability to manipulate narrative voice and tone distinguished twelfth-grade writing at the highest levels. In "Sufficient" responses, students told clear stories enlivened with some details; responses rated "Uneven" were clear stories that lacked details or tight organization.

Informative Writing: Describing, Designing, Explaining

To inform a reader, the writer must understand the subject to be conveyed, organize it, and present it clearly. Informative writing prompts varied among the grades, asking students to present different kinds of information in a variety of ways.

In most fourth-grade prompts, students were asked to write about familiar subjects (such as the "Favorite Object" prompt), while others provided photographs to interpret or letters to answer. Fourth graders who wrote "Skillful" and "Excellent" responses developed ideas with specific details and organized them clearly, through comparison and contrast, for example. In responses rated "Sufficient," students presented a clear sequence of information, but with ideas that were only generally related. Fourth-grade responses rated "Uneven" presented some ideas, but not in a clear sequence or with only partial development.

At eighth grade, students were given more new information to assimilate and present (in charts, pictures, or letters) and a greater variety of audiences (such as a school board, friend, or educational television network president). Some were asked to design something new (as in the "Designing a TV Show" prompt reprinted in this report) or to draw on background knowledge. That could involve choosing a particular experience to illustrate a point, or describing an object, place, or something read. In responses rated "Skillful" or "Excellent," eighth-grade students developed information fully with details and organized it well, using transitions or other devices to link sections. Some took a more personal tone, others a more impersonal tone. The form of responses also varied; some students provided clearly-marked introductions and conclusions. Others incorporated narrative strategies (for example, by describing a sample episode of an educational television show for the "Designing a TV Show" prompt). "Sufficient" responses were organized but did not connect sections clearly, while "Uneven" responses provided general information or were somewhat repetitive.

At twelfth grade, students had to present information to both formal and informal audiences, in forms that ranged from letters to essays to reports. For the "Writing Mentor" prompt, for example, twelfth graders were asked to write a letter to a tenth grader about how to write in high school. This task required the ability to condense knowledge clearly for a younger reader. Other prompts asked twelfth graders to draw on knowledge of something read or studied, to consider the pros and cons of a recent social development, or to interpret an experience in light of a particular theme. In responses that drew on background knowledge, twelfth graders typically gave more detailed accounts of things read or studied or of experiences than eighth graders.

In responses rated "Skillful" or "Excellent," twelfth-grade students did not simply provide information but organized it to guide the reader through it smoothly. Students who wrote "Sufficient" responses organized information but did not elaborate on details or provide a structure to guide the reader through the information. Responses rated "Uneven" had some details, but had parts that were unclear or undeveloped.

Persuasive Writing: Convincing the Reader

Persuasion in writing can be a gentle or more forceful art. Often, the most persuasive writing does not simply refute opponents' arguments but uses more subtle approaches, including rhetorical strategies such as rhetorical questions or illustrative stories. Most fourth-grade persuasive prompts drew on students' own knowledge or experience. Students were asked to enter into debates or to write letters to teachers or friends convincing them to take action (as in the "Invisible Friend" prompt, in which students had to convince an imaginary friend to become visible). Fourth graders used persuasive strategies such as classifying advantages and disadvantages of a situation. In responses rated "Skillful" or "Excellent," fourth graders took clear positions, developing support through specific details or examples. In responses rated "Sufficient," fourth graders provided support for a position; students whose responses were rated "Uneven" provided a clear position but showed some difficulties supporting it.

Most eighth-grade persuasive prompts had a wider context, asking students to address issues relevant to their schools. For "Lengthening the School Year," for example, eighth graders responded to the proposition that students should go to school in the summer. Students who wrote "Skillful" and "Excellent" responses used direct appeals to their audience, like the student who pleaded against lengthening the school year by noting that the adults running the country now did not go to school any longer than today's students! At eighth grade, by contrast to fourth grade, in "Skillful" and "Excellent" responses, students went beyond providing evidence for a position to developing a complete argument with appropriate reasons. In responses rated "Sufficient," students provided clear reasons for a position, but did not clearly connect sections of their responses. In "Uneven" responses, students provided reasons but had uneven organization.

Most twelfth-grade persuasive prompts broadened the writing context beyond the school orientation of the eighth-grade prompts, asking for writing that ranged from letters to an editor to debates on the merits of particular social changes. The "One Vote" prompt, which asked students to consider the importance of voting, became a way for students to analyze the importance of participating in a democracy. In twelfth-grade writing rated "Skillful" and "Excellent," students constructed coherent arguments throughout their responses. Some students carefully weighed both sides of an issue before choosing one. Others used rhetorical strategies such as humor, repetition or rhetorical questions to appeal to an audience. Students who earned the "Sufficient" rating constructed arguments with reasons, but did not link reasons to each other throughout. In "Uneven" responses, students took a position, but provided some support that was undeveloped or irrelevant.

Evaluating Student Responses

Both the prompts and scoring guides were designed to be appropriate to each grade (4, 8, and 12). This section presents the scoring guides used in the assessment, one sample prompt at each grade, and student responses at each rating on the scoring guide. The prompts illustrate the kinds of writing most frequent at each grade level: narrative at grade 4, informative at grade 8 (for which there was the same number of prompts as for narrative), and persuasive at grade 12. The frequency of the three kinds of writing at each grade is based on the emphases they receive in instruction, to be appropriate to the grade level.

Grade 4 Narrative Scoring Guide

6 Excellent Response

- Tells a well-developed story with relevant descriptive details across the response.
- Events are well connected and tie the story together with transitions across the response.
- Sustains varied sentence structure and exhibits specific word choices.
- Exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

5 Skillful Response

- Tells a clear story with some development, including some relevant descriptive details.
- Events are connected in much of the response; may lack some transitions.
- Exhibits some variety in sentence structure and exhibits some specific word choices.
- Generally exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

4 Sufficient Response

- Tells a clear story with little development; has few details.
- Events are generally related; may contain brief digressions or inconsistencies.
- Generally has simple sentences and simple word choice; may exhibit uneven control over sentence boundaries.
- Has sentences that consist mostly of complete, clear, distinct thoughts; errors in grammar, spelling, and mechanics generally do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Attempts to tell a story, but tells only part of a story, gives a plan for a story, or is list-like.
- Lacks a clear progression of events; elements may not fit together or be in sequence.
- Exhibits uneven control over sentence boundaries and may have some inaccurate word choices.
- Errors in grammar, spelling, and mechanics sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Attempts a response, but is no more than a fragment or the beginning of a story OR is very repetitive.
- Is very disorganized OR too brief to detect organization.
- Exhibits little control over sentence boundaries and sentence formation; word choice is inaccurate in much of the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics are severe enough to make understanding very difficult in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Attempts a response, but may only paraphrase the prompt or be extremely brief.
- Exhibits no control over organization.
- Exhibits no control over sentence formation; word choice is inaccurate across the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics severely impede understanding across the response.

Grade 8 Narrative Scoring Guide

6 Excellent Response

- Tells a clear story that is well developed and shaped with well-chosen details across the response.
- Is well organized with strong transitions.
- Sustains variety in sentence structure and exhibits good word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 Skillful Response

- Tells a clear story that is developed and shaped with details in parts of the response.
- Is clearly organized, but may lack some transitions and/or have occasional lapses in continuity.
- Exhibits some variety in sentence structure and some good word choices.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 Sufficient Response

- Tells a clear story that is developed with some details.
- The parts of the story are generally related, but there are few or no transitions.
- Exhibits control over sentence boundaries and sentence structure, but sentences and word choice may be simple and unvaried.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Attempts to tell a story, but parts of the story are unclear, undeveloped, list-like, or repetitive OR offers no more than a well-written beginning.
- Is unevenly organized; parts of the story may be unrelated to one another.
- Exhibits uneven control over sentence boundaries and sentence structure; may have some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Attempts to tell a story, but the attempt may be a fragment and/or very undeveloped.
- Is very disorganized throughout the response OR too brief to detect organization.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation interfere with understanding in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Responds to prompt, but provides little or no coherent content OR merely paraphrases the prompt.
- Has no apparent organization OR consists of a single statement.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- A multiplicity of errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation severely impedes understanding across the response.

Grade 12 Narrative Scoring Guide

6 **Excellent Response**

- Tells a clear story that is consistently well developed and detailed; details enhance story being told.
- Is well organized; integrates narrative events into a smooth telling; effective transitions move the story forward.
- Consistently exhibits variety in sentence structure and precision in word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 **Skillful Response**

- Tells a clear story that is well developed and elaborated with details in much of the response.
- Is well organized with story elements that are connected across most of the response; may have occasional lapses in transitions.
- Exhibits some variety in sentence structure and uses good word choice; occasionally, words may be used inaccurately.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 **Sufficient Response**

- Tells a clear story that is developed with some pertinent details.
- Is generally organized, but transitions among parts of the story may be lacking.
- Sentence structure may be simple and unvaried; word choice is mostly accurate.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 **Uneven Response** (may be characterized by one or more of the following:)

- Tells a story that may be clear and developed in parts; other parts are unfocused, repetitive, or minimally developed OR response is no more than a well-written beginning.
- Is organized in parts of the response; other parts are disjointed and/or lack transitions.
- Exhibits uneven control over sentence boundaries and sentence structure; may exhibit some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 **Insufficient Response** (may be characterized by one or more of the following:)

- Attempts to tell a story, but is very undeveloped, list-like, or fragmentary.
- Is disorganized or unfocused in much of the response OR the response is too brief to detect organization.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar, spelling, and punctuation interfere with understanding in much of the response.

1 **Unsatisfactory Response** (may be characterized by one or more of the following:)

- Responds to prompt but provides little or no coherent content OR merely paraphrases the prompt.
- Has little or no apparent organization.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- Errors in grammar, spelling, and punctuation severely impede understanding across the response.

Grade 4 Informative Scoring Guide

6 Excellent Response

- Develops ideas well and uses specific, relevant details across the response.
- Is well organized with clear transitions.
- Sustains varied sentence structure and exhibits specific word choices.
- Exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

5 Skillful Response

- Develops ideas with some specific, relevant details.
- Is clearly organized; information is presented in an orderly way, but response may lack transitions.
- Exhibits some variety in sentence structure and exhibits some specific word choices.
- Generally exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

4 Sufficient Response

- Clear but sparsely developed; may have few details.
- Provides a clear sequence of information; provides pieces of information that are generally related to each other.
- Generally has simple sentences and simple word choice; may exhibit uneven control over sentence boundaries.
- Has sentences that consist mostly of complete, clear, distinct thoughts; errors in grammar, spelling, and mechanics generally do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Provides limited or incomplete information; may be list-like or have the quality of an outline.
- Is disorganized or provides a disjointed sequence of information.
- Exhibits uneven control over sentence boundaries and may have some inaccurate word choices.
- Errors in grammar, spelling, and mechanics sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Provides little information and makes little attempt at development.
- Is very disorganized OR too brief to detect organization.
- Exhibits little control over sentence boundaries and sentence formation; word choice is inaccurate in much of the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics are severe enough to make understanding very difficult in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Attempts a response, but may only paraphrase the prompt or be extremely brief.
- Exhibits no control over organization.
- Exhibits no control over sentence formation; word choice is inaccurate across the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics severely impede understanding across the response.

Grade 8 Informative Scoring Guide

6 Excellent Response

- Develops and shapes information with well-chosen details across the response.
- Is well organized with strong transitions.
- Sustains variety in sentence structure and exhibits good word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 Skillful Response

- Develops and shapes information with details in parts of the response.
- Is clearly organized, but may lack some transitions and/or have occasional lapses in continuity.
- Exhibits some variety in sentence structure and some good word choices.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 Sufficient Response

- Develops information with some details.
- Organized with ideas that are generally related, but has few or no transitions.
- Exhibits control over sentence boundaries and sentence structure, but sentences and word choice may be simple and unvaried.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Presents some clear information, but is list-like, undeveloped, or repetitive OR offers no more than a well-written beginning.
- Is unevenly organized; the response may be disjointed.
- Exhibits uneven control over sentence boundaries and sentence structure; may have some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Presents fragmented information OR may be very repetitive OR may be very undeveloped.
- Is very disorganized; thoughts are tenuously connected OR the response is too brief to detect organization.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation interfere with understanding in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Attempts to respond to prompt, but provides little or no coherent information; may only paraphrase the prompt.
- Has no apparent organization OR consists of a single statement.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- A multiplicity of errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation severely impedes understanding across the response.

Grade 12 Informative Scoring Guide

6 **Excellent Response**

- Information is presented effectively and consistently supported with well-chosen details.
- Is focused and well organized, with a sustained controlling idea and effective use of transitions.
- Consistently exhibits variety in sentence structure and precision in word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 **Skillful Response**

- Information is presented clearly and supported with pertinent details in much of the response.
- Is well organized, but may lack some transitions.
- Exhibits some variety in sentence structure and uses good word choice; occasionally, words may be used inaccurately.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 **Sufficient Response**

- Information is presented clearly and supported with some pertinent details.
- Is generally organized, but has few or no transitions among parts.
- Sentence structure may be simple and unvaried; word choice is mostly accurate.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 **Uneven Response** (may be characterized by one or more of the following:)

- Information is presented clearly in parts; other parts are undeveloped or repetitive OR response is no more than a well-written beginning.
- Is organized in parts of the response; other parts are disjointed and/or lack transitions.
- Exhibits uneven control over sentence boundaries and sentence structure; may exhibit some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 **Insufficient Response** (may be characterized by one or more of the following:)

- Provides information that is very undeveloped or list-like.
- Is disorganized or unfocused in much of the response OR the response is too brief to detect organization.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar, spelling, and punctuation interfere with understanding in much of the response.

1 **Unsatisfactory Response** (may be characterized by one or more of the following:)

- Responds to prompt, but may be incoherent OR provides very minimal information OR merely paraphrases the prompt.
- Exhibits little or no apparent organization.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- Errors in grammar, spelling, and punctuation severely impede understanding across the response.

Grade 4 Persuasive Scoring Guide

6 Excellent Response

- Takes a clear position and develops support with well-chosen details, reasons, or examples across the response.
- Is well organized; maintains focus.
- Sustains varied sentence structure and exhibits specific word choices.
- Exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

5 Skillful Response

- Takes a clear position and develops support with some specific details, reasons, or examples.
- Provides some organization of ideas by, for example, using contrast or building to a point.
- Exhibits some variety in sentence structure and exhibits some specific word choices.
- Generally exhibits control over sentence boundaries; errors in grammar, spelling, and mechanics do not interfere with understanding.

4 Sufficient Response

- Takes a clear position with support that is clear and generally related to the issue.
- Is generally organized.
- Generally has simple sentences and simple word choice; may exhibit uneven control over sentence boundaries.
- Has sentences that consist mostly of complete, clear, distinct thoughts; errors in grammar, spelling, and mechanics generally do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Takes a position and offers limited or incomplete support; some reasons may not be clear or related to the issue.
- Is disorganized OR provides a disjointed sequence of information.
- Exhibits uneven control over sentence boundaries and may have some inaccurate word choices.
- Errors in grammar, spelling, and mechanics sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Takes a position, but provides only minimal support (generalizations or a specific reason or example); OR attempts to take a position but the position is unclear.
- Is very disorganized or too brief to detect organization.
- May exhibit little control over sentence boundaries and sentence formation; word choice is inaccurate in much of the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics may be severe enough to make understanding very difficult in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Takes a position, but provides no support OR attempts to take a position (is on topic), but position is very unclear; may only paraphrase the prompt.
- Exhibits no control over organization.
- Exhibits no control over sentence formation; word choice is inaccurate across the response.
- Characterized by misspellings, missing words, incorrect word order; errors in grammar, spelling, and mechanics severely impede understanding across the response.

Grade 8 Persuasive Scoring Guide

6 Excellent Response

- Takes a clear position and develops it consistently with well-chosen reasons and/or examples across the response.
- Is well organized with strong transitions.
- Sustains variety in sentence structure and exhibits good word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 Skillful Response

- Takes a clear position and develops it with reasons and/or examples in parts of the response.
- Is clearly organized, but may lack some transitions and/or have occasional lapses in continuity.
- Exhibits some variety in sentence structure and some good word choices.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 Sufficient Response

- Takes a clear position and supports it with some reasons and/or examples.
- Is organized with ideas that are generally related, but there are few or no transitions.
- Exhibits control over sentence boundaries and sentence structure, but sentences and word choice may be simple and unvaried.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Takes a position and offers support, but may be unclear, repetitive, list-like, or undeveloped.
- Is unevenly organized; the response may be disjointed.
- Exhibits uneven control over sentence boundaries and sentence structure; may have some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Takes a position, but response may be very unclear, very undeveloped, or very repetitive.
- Is very disorganized; thoughts are tenuously connected OR the response is too brief to detect organization.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation interfere with understanding in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Attempts to take a position (addresses topic) but response is incoherent OR takes a position but provides no support; may only paraphrase the prompt.
- Has no apparent organization OR consists of a single statement.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- A multiplicity of errors in grammar or usage (such as missing words or incorrect word use or word order), spelling, and punctuation severely impedes understanding across the response.

Grade 12 Persuasive Scoring Guide

6 Excellent Response

- Takes a clear position and supports it consistently with well-chosen reasons and/or examples; may use persuasive strategy to convey an argument.
- Is focused and well organized, with effective use of transitions.
- Consistently exhibits variety in sentence structure and precision in word choice.
- Errors in grammar, spelling, and punctuation are few and do not interfere with understanding.

5 Skillful Response

- Takes a clear position and supports it with pertinent reasons and/or examples through much of the response.
- Is well organized, but may lack some transitions.
- Exhibits some variety in sentence structure and uses good word choice; occasionally, words may be used inaccurately.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

4 Sufficient Response

- Takes a clear position and supports it with some pertinent reasons and/or examples; there is some development.
- Is generally organized, but has few or no transitions among parts.
- Sentence structure may be simple and unvaried; word choice is mostly accurate.
- Errors in grammar, spelling, and punctuation do not interfere with understanding.

3 Uneven Response (may be characterized by one or more of the following:)

- Takes a position and provides uneven support; may lack development in parts or be repetitive OR response is no more than a well-written beginning.
- Is organized in parts of the response; other parts are disjointed and/or lack transitions.
- Exhibits uneven control over sentence boundaries and sentence structure; may exhibit some inaccurate word choices.
- Errors in grammar, spelling, and punctuation sometimes interfere with understanding.

2 Insufficient Response (may be characterized by one or more of the following:)

- Takes a position but response is very undeveloped.
- Is disorganized or unfocused in much of the response OR clear but very brief.
- Minimal control over sentence boundaries and sentence structure; word choice may often be inaccurate.
- Errors in grammar, spelling, and punctuation interfere with understanding in much of the response.

1 Unsatisfactory Response (may be characterized by one or more of the following:)

- Attempts to take a position (addresses topic), but position is very unclear OR takes a position, but provides minimal or no support; may only paraphrase the prompt.
- Exhibits little or no apparent organization.
- Minimal or no control over sentence boundaries and sentence structure; word choice may be inaccurate in much or all of the response.
- Errors in grammar, spelling, and punctuation severely impede understanding across the response.

Sample Prompt and Student Responses - Grade 4

Prompt: *Castle*

One morning a child looks out the window and discovers that a huge castle has appeared overnight. The child rushes outside to the castle and hears strange sounds coming from it. Someone is living in the castle!

The castle door creaks open. The child goes in.

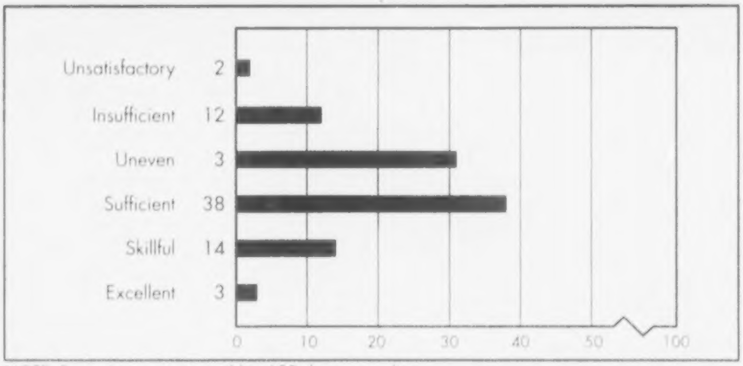
Write a story about who the child meets and what happens inside the castle.

Writing Purpose: Narrative

Responses to this prompt were rated according to the grade 4 narrative scoring guide.

In the imaginative stories written for this prompt, "Castle," characters sometimes appear and disappear rather suddenly. Students who received ratings in the upper half of the six levels on the scoring guide ("Sufficient" or better) were able to weave coherent stories, making effective use of suspense and surprise. Figure 6.1 shows the percentage of student responses to this prompt rated at each of the six levels on the scoring guide (from "Unsatisfactory" through "Excellent"). A sample response for each score level is presented on the following pages.

Figure 6.1 **Percentage of responses rated at different levels on the scoring guide, grade 4: *Castle***



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

The "Unsatisfactory" rating was given to 2 percent of the responses to this prompt. Responses at this level tended either to be so brief that they did not develop a story at all, or to be hard to understand throughout. In the response shown, the student only paraphrases the prompt: "The child meet a castle and go in the castle."

Sample "Unsatisfactory" Response

the child meet a castle and go in the castle.

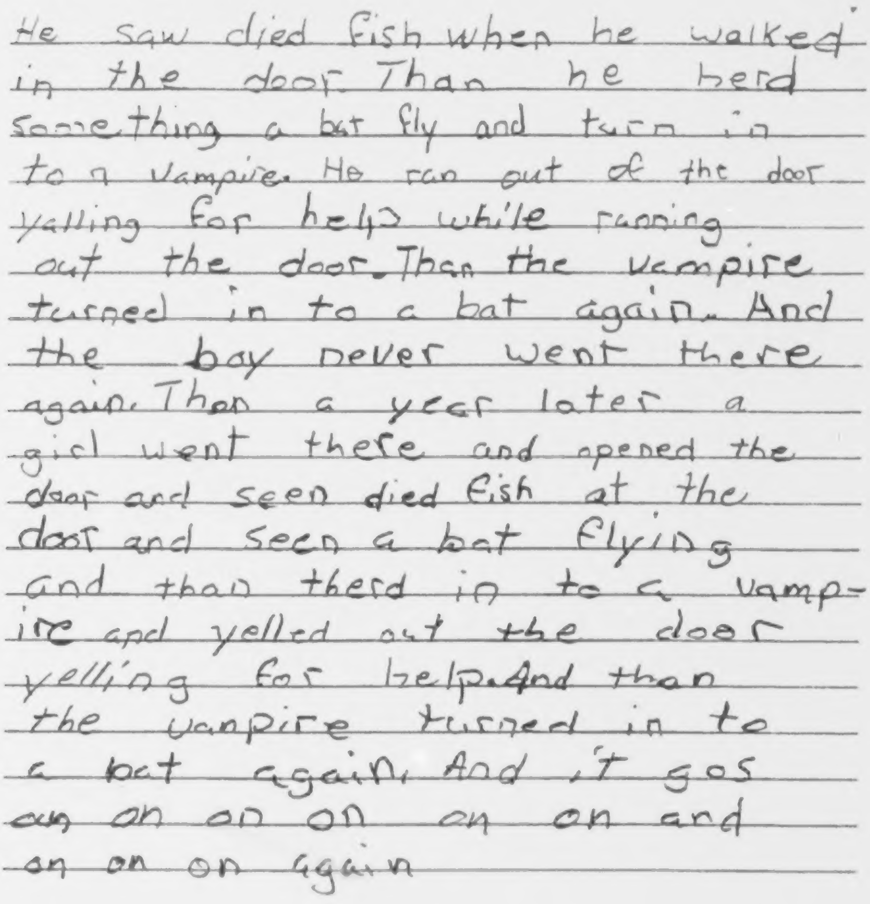
The "Insufficient" rating was given to 12 percent of the responses to this prompt. In "Insufficient" responses, students produced only the beginning of a story, wrote very disorganized stories, or wrote responses that were understandable only in part. In the response shown, the student begins to tell a story, introducing a new character, the "giant," but does not progress beyond that point.

Sample "Insufficient" Response

Once morning a Child looks out a window and sees that a castle appears overnight. She runs to the castle and inside she meet a giant. The giant let her in. He asked her her name. He was married to another giant.

The "Uneven" rating was given to 31 percent of the responses to this prompt. In such responses, students attempted to tell an entire story, but the attempt was incomplete or disorganized. In the "Uneven" response shown, there is some dramatic action ("then he herd something a bat fly and turn in to a vampire"). That action, however, is repetitive, as the events are not connected to form a coherent story: "And then the vampire turned in to a bat again. And it gos on on on on on on and on on on again."

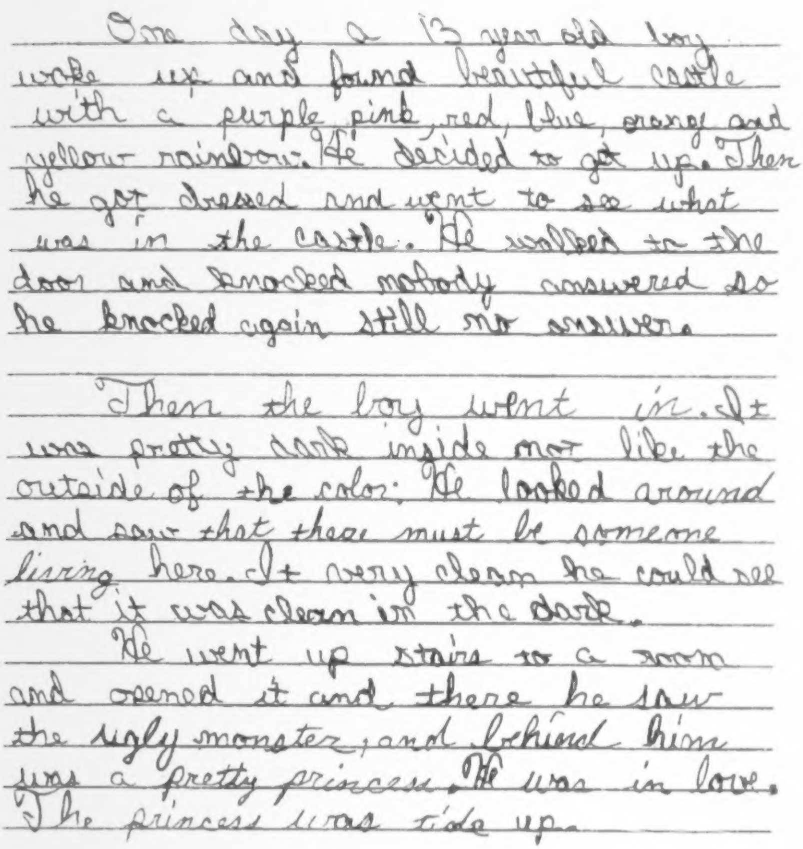
Sample "Uneven" Response



He saw died fish when he walked in the door. Than he herd something a bat fly and turn in to a vampire. He ran out of the door yalling for help while running out the door. Than the vampire turned in to a bat again. And the bay never went there again. Than a year later a girl went there and opened the door and seen died fish at the door and seen a bat flying and than therd in to a vampire and yelled out the door yelling for help. And than the vanpire turned in to a bat again. And it gos on on on on on on and on on on again

The "Sufficient" rating was given to 38 percent of the responses to this prompt. In such responses, students told complete stories that were organized and clear, but lacking in detail. In the sample below, the student provides a clear but bare plot. He or she includes the vivid detail of the colors of the rainbow in the first sentence, but uses detail sparingly beyond that. Though the story does not conclude, enough action occurs that most of the development is clear. The simple, but essentially clear and correct, sentence structure and vocabulary are typical of responses at this level.

Sample "Sufficient" Response



One day a 13 year old boy woke up and found beautiful castle with a purple, pink, red, blue, orange and yellow rainbow. He decided to get up. Then he got dressed and went to see what was in the castle. He walked to the door and knocked nobody answered so he knocked again still no answer.

Then the boy went in. It was pretty dark inside not like the outside of the color. He looked around and saw that there must be someone living here. It very clean he could see that it was clean in the dark.

He went up stairs to a room and opened it and there he saw the ugly monster, and behind him was a pretty princess. He was in love. The princess was tide up.

The "Skillful" rating was given to 14 percent of the responses to this prompt. In such responses, students used details to develop their stories in parts of the response. They provided a good structure to their stories, though with occasional lack of transitions. In the sample "Skillful" response, the plot occasionally shifts abruptly, as when the boy "sees a woman" who looks like him and they suddenly start to "walk through the castle." Though the ending is concise, the student ties up the story with the revelation "Then the girl realizes the boy in the picture is her long Lost Brother."

Sample "Skillful" Response

First He sees a dark room filled with object some big some small some short some tall. as he is reaching for the light switch something grabs his hand and turns it on for him. As it turns on the boy sees a woman so beatiful she captures his eys The look so much alike. They walk through the castle telling eachother stories about eachother showing eachother pictures from there life The girl says she had a long lost brother from long ago. She says he looks like this and showed him the picture. The boy says he has a picture just like that of himself Then the girl realizes the boy in the picture is hers long Lost Brother.

The "Excellent" rating was given to 3 percent of the responses to this prompt. Such responses may have excelled through good development of plot, characters, or dialogue. In the response shown, the student uses dialogue effectively, develops characters, and provides a coherent plot. The student shows good control of language for a fourth grader and includes vivid details about appearance — "He was dressed in royalty with a purple cape and a crown of jewels."

Sample "Excellent" Response

"Wow a castle!" said John. He had know clue of how it got here or where it came from? He walked inside and found that it was rather damp. He wndered around until finally he saw someone. This person didn't look normal. He was dressed in royalty with a purple cape and a crown of jewels. Then the person spoke out "There you are you're supposed to be training right now." John had know clue what he was talking about. Suddenly he thought of something, was this the King of the castle? He finally got the nerve to ask a question. He asked "Who are you". He answered "I'm the King". John was shocked. Then the King told him to get on his armor. John thought and thought. Then he knew what he was talking about. He thought he was a knight. John thought again. If he was to be a knight then he would never see his family again. Then he thought of his older sister, Jennifer. He decided to be a knight. After about 2 months he- finally was knighted. He fought many dragon's and man. He finally died but is still a legend today.

The End

By: Unknown

Prompt: *Designing a TV Show*

A public television network is seeking ideas for a new series of shows that would be educational for teenagers. The series will include ten one-hour episodes and will be shown once a week. Some of the titles under consideration are:

"Great Cities of the World"

"Women in History"

"Nature Walks"

"American Legends"

Choose one of these titles. Write a letter to the network president describing your ideas for a new educational series. In your letter, describe what one episode might be like. Use specific examples of what information you would include in the episode so the network president will be able to imagine what the series would be like.

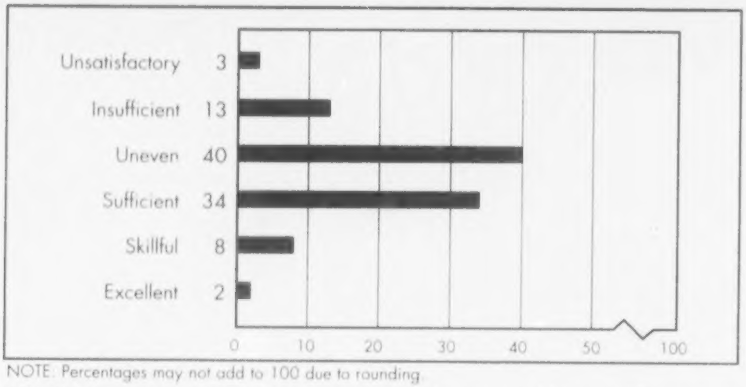
Writing Purpose: Informative

Responses to this prompt were rated according to the grade 8 informative scoring guide.

In responding to this prompt, students at the upper score levels ("Sufficient" or better) provided organized responses with illustrative details. Some students provided descriptions of an entire episode, down to the dialogue and camera-angles.

Figure 6.2 shows the percentage of student responses rated at each of the six levels on the scoring guide (from "Unsatisfactory" through "Excellent") for the "Designing a TV Show" prompt.

Figure 6.2 **Percentage of responses rated at different levels on the scoring guide, grade 8: *Designing a TV Show***



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table 6.2 shows, for students in each jurisdiction that participated in the grade 8 state NAEP writing assessment, the percentage of student responses receiving ratings at each of the six levels on the scoring guide. The information in that table is for public schools only, for both the nation and the states.

Table 6.2

Percentage of responses rated at different levels on the scoring guide by jurisdiction for *Designing a TV Show*, grade 8 public schools only: 1998

	Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
Nation	3	14	42	32	8	2
States						
Alabama	2	17	49	27	5	0
Arizona	1	14	47	32	4	1
Arkansas	3	18	45	29	4	0
California †	7	17	48	22	6	1
Colorado	2	10	43	39	4	2
Connecticut	1	8	38	37	11	4
Delaware	1	16	44	31	8	1
Florida	3	18	45	27	6	1
Georgia	4	15	40	36	5	1
Hawaii	5	16	49	24	6	0
Kentucky	2	12	47	34	4	2
Louisiana	4	21	49	22	4	0
Maine	2	9	38	36	11	4
Maryland	1	10	43	35	8	3
Massachusetts	1	10	38	33	13	5
Minnesota †	2	13	43	34	6	2
Mississippi	4	22	49	19	5	0
Missouri	6	14	43	30	6	1
Montana †	0	7	48	38	7	1
Nevada	4	16	45	33	2	0
New Mexico	5	16	41	32	5	2
New York †	4	9	37	39	8	2
North Carolina	1	10	45	36	5	2
Oklahoma	1	6	47	37	7	3
Oregon	1	11	47	36	4	1
Rhode Island	1	13	43	33	8	2
South Carolina	5	15	46	30	4	0
Tennessee	4	17	47	26	5	[illegible]
Texas	2	11	47	35	4	1
Utah	6	15	42	31	6	0
Virginia	0	7	46	39	7	1
Washington	1	14	51	27	7	0
West Virginia	2	15	47	31	5	1
Wisconsin †	1	11	50	28	9	1
Wyoming	3	12	47	30	5	3
Other Jurisdictions						
District of Columbia	8	15	42	31	4	0
DDESS	***	***	***	***	***	***
DoDDS	1	7	47	38	8	0
Virgin Islands	8	23	48	21	0	0

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

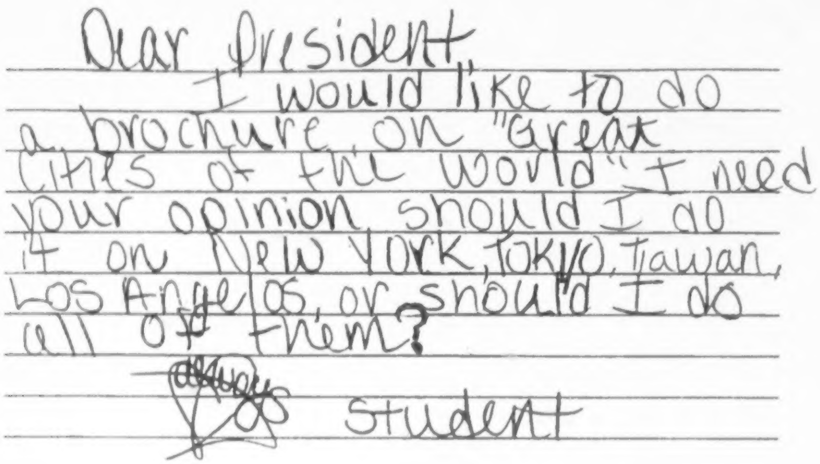
DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

The "Unsatisfactory" rating was given to 3 percent of the responses to this prompt. Such responses were very undeveloped or very poorly written. In the "Unsatisfactory" response shown, the student chooses one of the series titles provided in the prompt and asks what to include, without presenting his or her ideas about what to show on the television series.

Sample "Unsatisfactory" Response

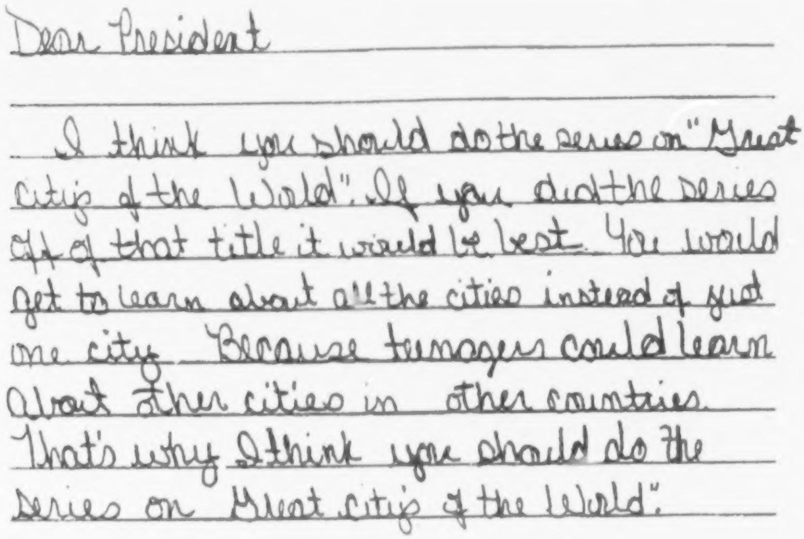


Dear President,
I would like to do a brochure on "Great Cities of the World" I need your opinion should I do it on New York, Tokyo, Tawan, Los Angelos, or should I do all of them?

Student

The "Insufficient" rating was given to 13 percent of the responses to this prompt. Such responses supplied only minimal information about the student's choice of an educational television series. In the example presented here, the student provides a justification for the series: "You would get to learn about all the cities instead of just one city." However, the student does not develop that justification by describing the substance of the show.

Sample "Insufficient" Response

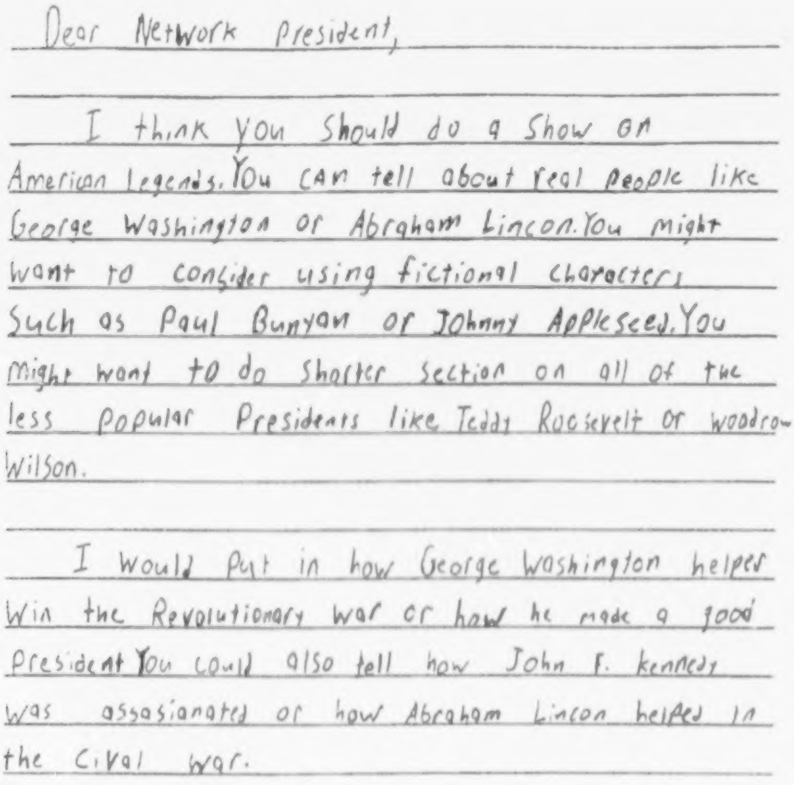


Dear President

I think you should do the series on "Great
citys of the World". If you did the series
off of that title it would be best. You would
get to learn about all the cities instead of just
one city. Because teenagers could learn
about other cities in other countries.
That's why I think you should do the
series on "Great citys of the World".

The "Uneven" rating was given to 40 percent of the responses to this prompt. In many of these responses, students mentioned a few specific elements to be presented on the television series, but listed rather than developed them. In the "Uneven" paper shown, the student enumerates various "American Legends" to be presented, along with an identifying detail or two about George Washington, John F. Kennedy, and Abraham Lincoln, for example: "You could also tell how John F. Kennedy was assasianated or how Abraham Lincon helped in the Cival War." The student, however, does not develop points, and his or her command of the mechanics of writing is uneven.

Sample "Uneven" Response



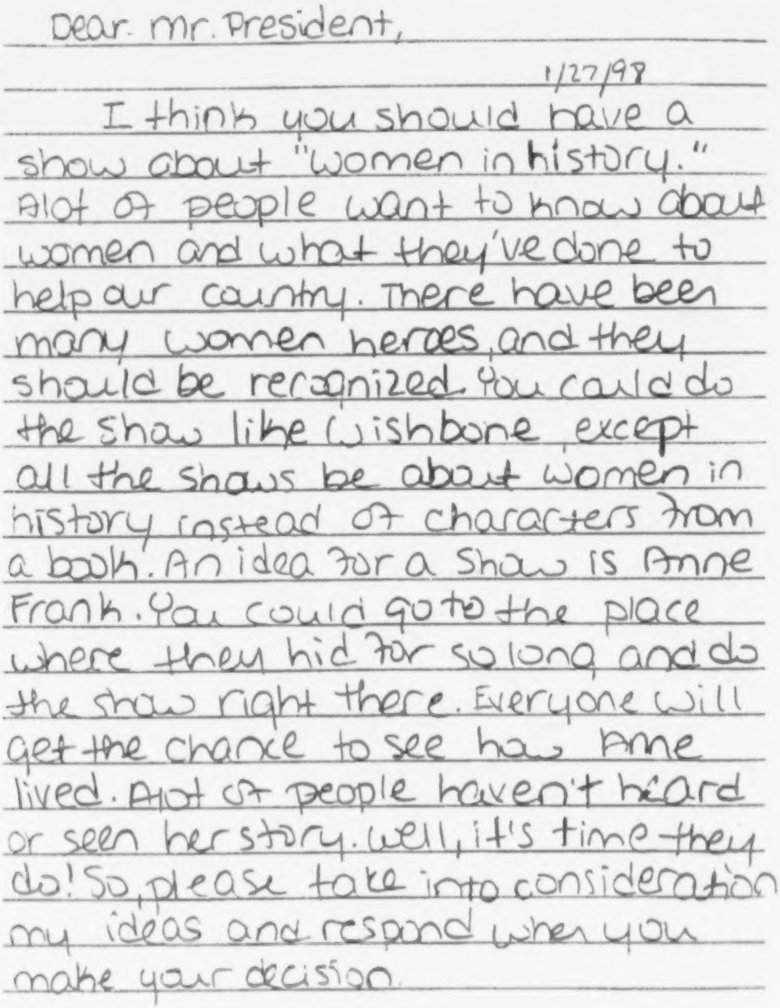
Dear Network President,

I think you Should do a Show on American legends. You can tell about real people like George Washington or Abraham Lincon. You might want to consider using fictional characters such as Paul Bunyan or Johnny Appleseed. You might want to do shorter section on all of the less popular Presidents like Teddy Roosevelt or woodrow Wilson.

I would put in how George Washington helped win the Revolutionary war or how he made a good President You could also tell how John F. kennedy was assasianated or how Abraham Lincon helped in the Cival war.

The "Sufficient" rating was given to 34 percent of the responses to this prompt. Such responses were organized and provided some details. This sample was also presented as an exemplar of *Proficient* achievement in Chapter 1. In the response shown, the student's writing is clear, accurate, and organized.

Sample "Sufficient" Response



Dear. Mr. President,

1/27/98

I think you should have a show about "women in history." Alot of people want to know about women and what they've done to help our country. There have been many women heroes, and they should be recognized. You could do the show like Wishbone, except all the shows be about women in history instead of characters from a book. An idea for a show is Anne Frank. You could go to the place where they hid for so long and do the show right there. Everyone will get the chance to see how Anne lived. Alot of people haven't heard or seen her story. Well, it's time they do! So, please take into consideration my ideas and respond when you make your decision.

The "Skillful" rating was given to 8 percent of the responses to this prompt. In such responses, students used detail and elaboration in parts of the response, with transitions to connect ideas. In the response shown, the student specifies who will be the narrators of the show and the order in which information will be presented: "The show is about four teenagers, around the ages of fourteen to seventeen who travel around the world. In each show they travel to two cities. When they arrive in the city they will first talk about the cities history and what it is like now in the present." The student also uses the example of Paris as the subject for one show. The student uses complex sentences and transitions (such as "When they arrive in the city . . . . ," "For example . . . .") to tie points together and lead the reader through the essay.

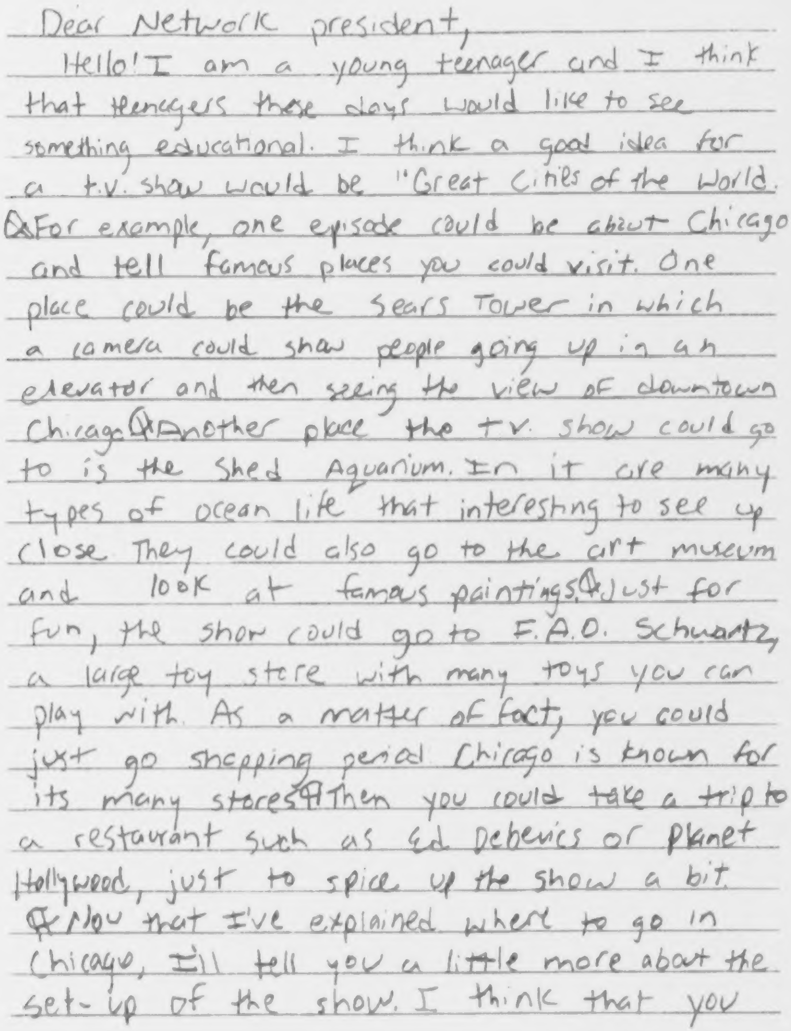
Sample "Skillful" Response

Dear Network president,

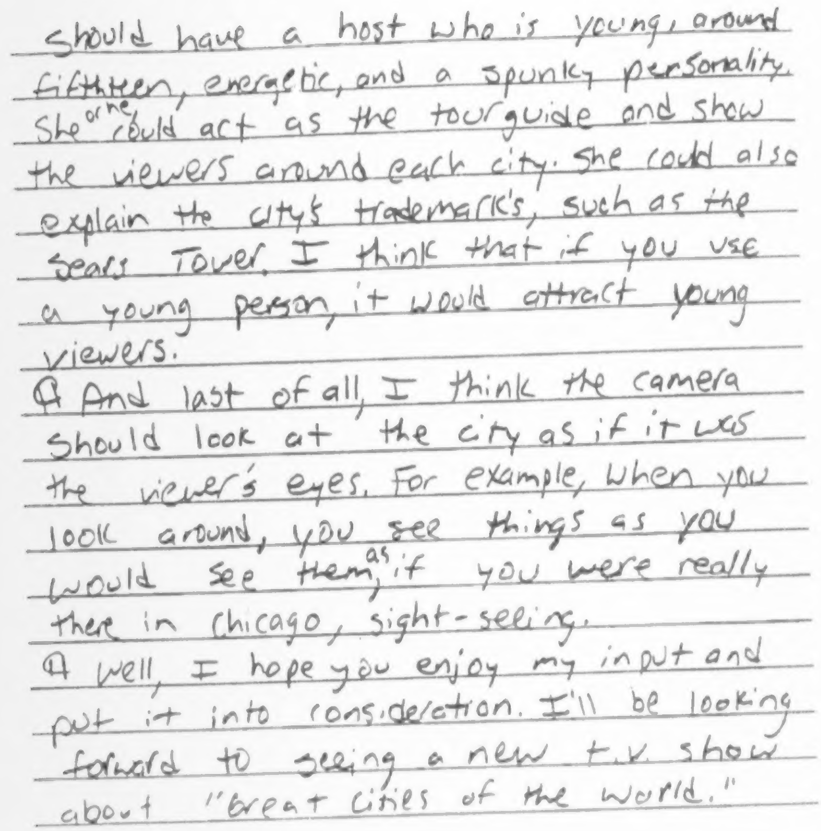
I think that I have a new show for your network. It's called Great Cities of the World. The show is about four teenagers, around the ages OF fourteen to Seventeen who travel around the World. In each Show they travel to two cities. When they arrive in the city they will first talk about the cities history and What it is like now in the present. They talk about some of the tradions in the city. For example if the Students went to Paris, France they Would talk about France's past and some of the things they do in there daily lives. They could talk about the people, what they look like and their styles. To keep the show intresting you can show things such as we learn how to say a word from their language or meet many different people from their city. Also to keep the show intresting they can have problems

The "Excellent" rating was given to 2 percent of the responses to this prompt, in which students used detail and development across the response. The "Excellent" response shown describes an entire episode of a television series in detail. The student includes such details as how the camera would move: "One place could be the Sears Tower in which a camera could show people going up in an elevator and then seeing the view of downtown Chicago." He or she describes a wide variety of sights in Chicago with suggestions for how to present them. Points such as "I think the camera should look at the city as if it was the viewer's eyes" enable the reader to visualize the show. This student shows good control of language; occasional minor errors do not interfere with meaning.

Sample "Excellent" Response



Dear Network president,
Hello! I am a young teenager and I think
that teenagers these days would like to see
something educational. I think a good idea for
a t.v. show would be "Great Cities of the World.
¶For example, one episode could be about Chicago
and tell famous places you could visit. One
place could be the Sears Tower in which
a camera could show people going up in an
elevator and then seeing the view of downtown
Chicago. ¶Another place the t.v. show could go
to is the Shed Aquarium. In it are many
types of ocean life that interesting to see up
close They could also go to the art museum
and look at famous paintings. ¶Just for
fun, the show could go to F.A.O. Schwartz,
a large toy store with many toys you can
play with. As a matter of fact, you could
just go shopping period Chicago is known for
its many stores. ¶Then you could take a trip to
a restaurant such as Ed Debevics or Planet
Hollywood, just to spice up the show a bit.
¶Now that I've explained where to go in
Chicago, I'll tell you a little more about the
set-up of the show. I think that you



should have a host who is young, around
fifthteen, energetic, and a spunky personality.
She or he could act as the tourguide and show
the viewers around each city. She could also
explain the city's trademark's, such as the
Sears Tower. I think that if you use
a young person, it would attract young
viewers.
¶ And last of all, I think the camera
should look at the city as if it was
the viewer's eyes. For example, when you
look around, you see things as you
would see them, as if you were really
there in Chicago, sight-seeing.
¶ Well, I hope you enjoy my input and
put it into consideration. I'll be looking
forward to seeing a new t.v. show
about "Great Cities of the World."

Tables 6.3 and 6.4 present state-by-state results for the other two eighth-grade prompts, "Space Visitor" and "Lengthening the School Year," which were presented in Chapter 1.

Table 6.3

Percentage of responses rated at different levels on the scoring guide by jurisdiction for *Space Visitor*, grade 8 public schools only: 1998

	Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
Nation	1	12	22	46	14	5
States						
Alabama	1	12	18	51	13	5
Arizona	1	12	16	55	14	2
Arkansas	1	15	22	50	9	3
California †	1	16	19	45	14	5
Colorado	1	10	20	50	13	5
Connecticut	0	6	16	47	18	13
Delaware	2	10	19	50	11	7
Florida	2	11	22	54	7	4
Georgia	2	6	25	48	17	2
Hawaii	2	15	23	42	15	3
Kentucky	1	11	26	44	13	6
Louisiana	0	13	25	53	7	1
Maine	1	8	19	43	21	9
Maryland	1	11	23	52	11	3
Massachusetts	1	7	23	44	20	6
Minnesota †	2	10	17	51	16	3
Mississippi	1	17	24	50	7	1
Missouri	1	11	18	52	15	2
Montana †	1	7	22	52	11	5
Nevada	1	10	25	47	14	3
New Mexico	1	14	18	54	12	1
New York †	1	10	20	55	10	4
North Carolina	0	9	24	42	19	6
Oklahoma	1	7	17	54	17	5
Oregon	0	11	25	44	17	3
Rhode Island	1	9	20	48	16	6
South Carolina	1	10	26	51	10	3
Tennessee	1	8	21	52	15	3
Texas	0	7	18	52	19	4
Utah	1	18	20	42	14	5
Virginia	1	6	16	55	18	3
Washington	2	11	19	46	16	5
West Virginia	0	11	23	53	11	3
Wisconsin †	1	8	19	46	22	4
Wyoming	2	11	17	55	12	3
Other Jurisdictions						
District of Columbia	1	26	26	43	3	1
DDESS	0	3	22	54	19	3
DoDDS	0	6	13	48	24	9
Virgin Islands	***	***	***	***	***	***

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table 6.4

THE NATION'S REPORT CARD naep

Percentage of responses rated at different levels on the scoring guide by jurisdiction for *Lengthening the School Year*, grade 8 public schools only: 1998

	Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
Nation	4	10	35	35	14	3
States						
Alabama	3	12	46	28	9	1
Arizona	4	13	39	30	10	4
Arkansas	4	17	41	34	3	1
California †	4	12	40	28	12	3
Colorado	0	10	31	40	13	6
Connecticut	0	3	22	31	31	12
Delaware	4	18	40	29	9	1
Florida	5	16	32	33	11	3
Georgia	2	12	37	34	12	3
Hawaii	8	16	44	24	6	2
Kentucky	1	10	37	40	9	2
Louisiana	3	16	35	37	6	3
Maine	2	8	30	36	19	4
Maryland	1	11	40	30	17	1
Massachusetts	0	9	32	37	17	4
Minnesota †	2	12	36	35	12	4
Mississippi	5	17	38	35	4	1
Missouri	3	11	36	35	12	2
Montana †	1	12	35	42	8	3
Nevada	4	17	38	31	9	2
New Mexico	4	12	41	31	9	3
New York †	3	10	42	33	10	3
North Carolina	3	10	37	32	14	4
Oklahoma	2	9	42	37	8	3
Oregon	6	13	33	30	16	2
Rhode Island	4	10	34	37	12	3
South Carolina	2	12	40	39	6	1
Tennessee	2	10	37	37	13	1
Texas	2	6	28	34	24	6
Utah	4	18	32	36	8	2
Virginia	1	8	32	38	16	5
Washington	2	10	38	35	10	5
West Virginia	3	13	41	32	10	1
Wisconsin †	0	7	37	42	11	2
Wyoming	3	9	39	39	9	1
Other Jurisdictions						
District of Columbia	4	23	43	22	5	3
DDESS	***	***	***	***	***	***
DoDDS	1	9	33	43	12	3
Virgin Islands	5	17	57	20	2	0

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Prompt: ***One Vote***

Your school is sponsoring a voter registration drive for 18-year-old high school students. You and three of your friends are talking about the project. Your friends say the following.

Friend 1: "I'm working on the young voters' registration drive. Are you going to come to it and register? You're all 18, so you can do it. We're trying to help increase the number of young people who vote and it shouldn't be too hard — I read that the percentage of 18- to 20-year-olds who vote increased in recent years. We want that percentage to keep going up."

Friend 2: "I'll be there. People should vote as soon as they turn 18. It's one of the responsibilities of living in a democracy."

Friend 3: "I don't know if people should even bother to register. One vote in an election isn't going to change anything."

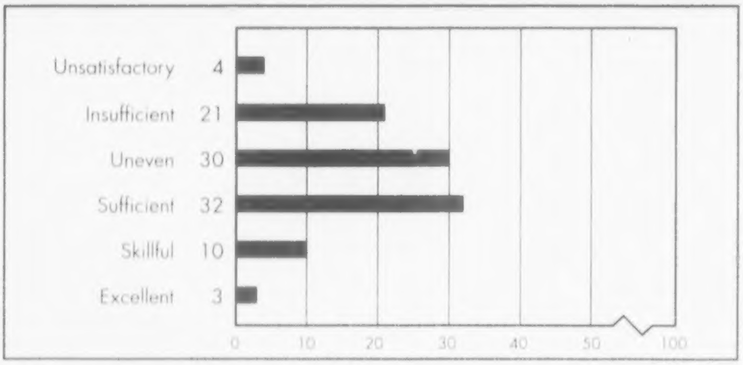
Do you agree with friend 2 or 3? Write a response to your friends in which you explain whether you will or will not register to vote. Be sure to explain why and support your position with examples from your reading or experience. Try to convince the friend with whom you disagree that your position is the right one.

Writing Purpose: Persuasive

Responses to this prompt were rated according to the grade 12 persuasive scoring guide.

Figure 6.3 shows the percentage of responses to the "One Vote" prompt rated at each of the six levels on the scoring guide (from "Unsatisfactory" through "Excellent").

Figure 6.3 **Percentage of responses rated at different levels on the scoring guide, grade 12: *One Vote***



NOTE: Percentages may not add to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

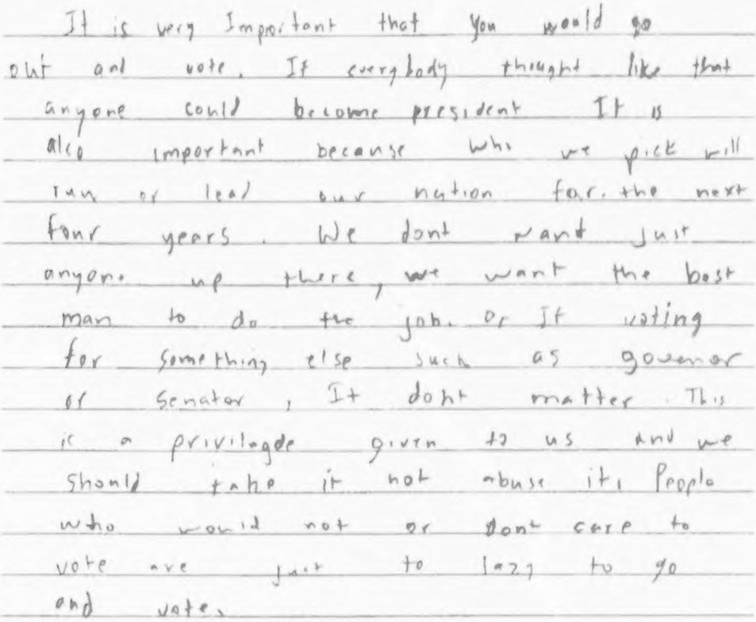
The "Unsatisfactory" rating was given to 4 percent of the responses to this prompt. Such responses were sometimes so unclear that the reader could not tell what position the student was taking. Other responses rated "Unsatisfactory" were extremely undeveloped. For example, in the response shown, the student only states that he or she agrees with one of the three friends in the reported conversation and goes no further.

Sample "Unsatisfactory" Response

I agree with #3 because if
you want to vote go for it Because
it is you choice.

The "Insufficient" rating was given to 21 percent of the responses to this prompt. Such responses were lacking either in organization or development (support of a position with reasons). In the "Insufficient" response included below, the student does not justify his or her position beyond saying that it matters who gets elected.

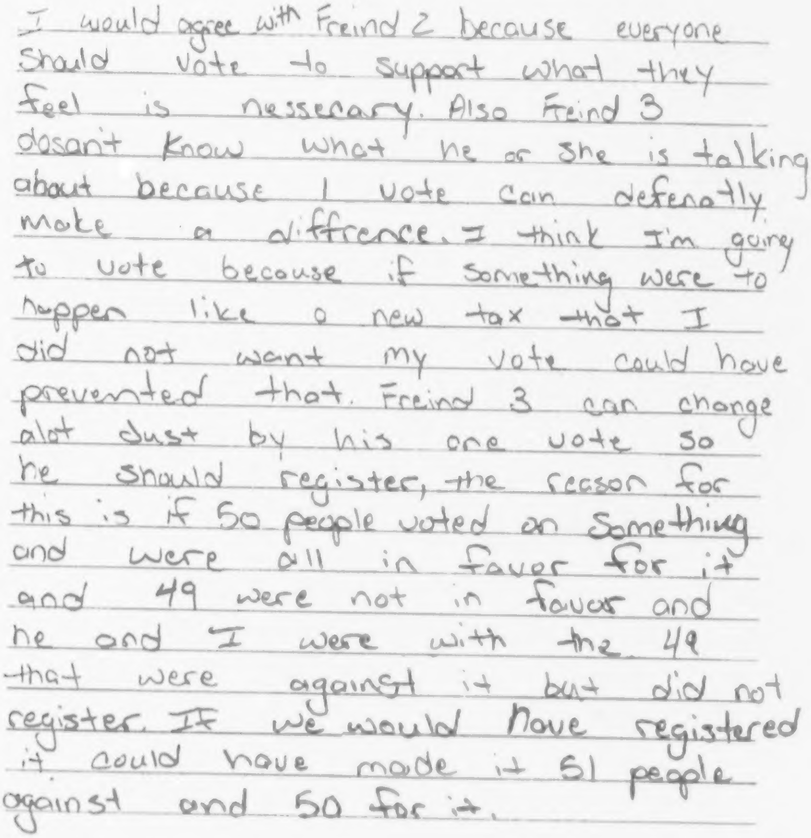
Sample "Insufficient" Response



It is very Important that You would go
out and vote. If everybody thought like that
anyone could become president It is
also important because who we pick will
run or lead our nation for. the next
four years. We dont want just
anyone up there, we want the best
man to do the job. Or If voting
for something else such as governor
or Senator, It dont matter. This
is a privilage given to us and we
should take it not abuse it, People
who would not or dont care to
vote are just to lazy to go
and vote.

The "Uneven" rating was given to 30 percent of the responses to this prompt. In such responses, students attempted to provide an argument supported with reasons, but faltered through lack of organization, problems with grammar that interfered with understanding, or incomplete development. In the response shown, the student provides a somewhat undeveloped argument, despite the example at the end to illustrate how one vote can make a difference. The student jumps from the point that "everyone should vote to support what they feel is nessecary" to the statement that "I vote can defenatly make a diffrence" without developing either point.

Sample "Uneven" Response



I would agree with Freind 2 because everyone Should vote to support what they feel is nessecary. Also Freind 3 dosen't know what he or she is talking about because 1 vote can defenatly make a diffrence. I think I'm going to vote becouse if Something were to happen like a new tax that I did not want my vote could have prevented that. Freind 3 can change alot Just by his one vote so he should register, the reason for this is if 50 people voted on Something and were all in favor for it and 49 were not in favor and he and I were with the 49 that were against it but did not register. If we would have registered it could have made it 51 people against and 50 for it.

The "Sufficient" rating was given to 32 percent of the responses to this prompt. In the "Sufficient" response presented here, the student organizes reasons into a complete, clear argument. Though the reasons are not developed with many details, the paper is organized and unified. The student connects points to build an argument: "many people who don't even vote complain about government leaders. But I say how can you complain if you didn't voice your opinion on who you think has the capability and skills to be a good leader." The control of language is noticeably better than in responses that received ratings below "Sufficient." Some problems with mechanics, especially in the last sentence of the essay, do not impede the overall clarity and unity of the paper.

Sample "Sufficient" Response

I think friend 2 is right. I believe that every single person's vote can help make a difference. It is important that we vote for who will lead our country, citiles, countiles and parishes. Our right to vote is our way of getting what we think our community deserves. The right to vote is your voice in the government. Many people who don't even vote complain about government leaders. But I say how can you complain if you didn't voice your opinion on who you think has the capability and skills to be a good leader. Your vote, along with others who didn't vote, could have made the difference. If no one voted our country would not have democracy. We could be lead by someone like Hitler or Mussolini. We as Americans have a choice. We should all take advantage of that right, to choose who will lead us. Who we choose to run our government has a direct effect on us. We shoudel all be will to try to choose who's right and who's for the people.

The "Skillful" rating was given to 10 percent of the responses to this prompt. In these responses, students elaborated reasons with details or examples in some, but not all, of the response and used transitions to connect ideas. In the "Skillful" response shown, the student introduces the theme in the first paragraph: "Voting isn't a responsibility, it's an opportunity." The student then points out why it is important to vote: to make the "beliefs of the general public" clear (second paragraph) and "to get an accurate representation of what all citizens want" (third paragraph).

Sample "Skillful" Response

I would agree with Friend 1 but in a slightly different way. Voting isn't a responsibility, it's an opportunity. It is a way to show support for someone or something that you believe in. One of the great things about this country is that we have the right to vote and this right should not be taken for granted.

Friend 3 is somewhat right in the sense that one vote really won't make much of a difference (especially in a presidential election). However, if everyone used ths as an excuse not to vote then the true beliefs of the general public would remain hidden from the government in which case they would do whatever they waited because people wouldn't tell them what they think they should do.

It is becoming more important that young people vote because most of the resistered voters are older. In order to get an accurate representation of what all citizens want then it is necessary for everyone to be an active voter.

The electoral college, in a way, discourages many people from voting because it eliminates the "one man, one vote" rule It is very likely that many people will think that their vote makes little or no difference at all. Stories of electors that don't even vote for their pledged candidate do not help peoples' opinions on voting.

The "Excellent" rating was given to 3 percent of the responses to this prompt. Students who wrote "Excellent" responses consistently elaborated reasons with details or examples, used transitions throughout, and often showed greater control over language (fewer errors and greater variety of sentence structure) than papers at the "Skillful" level. In the response shown, the student provides a consistent, elaborated argument and demonstrates a command of rhetoric unusual even for an "Excellent" response to this prompt. This response was also presented in Chapter 1 as an exemplar of *Advanced* performance at grade 12.

Sample "Excellent" Response

Whether a single person's vote makes a difference in an election is irrelevant. a democratic nation is one that recognizes an individual right to think and formulate an opinion, and voting is a manifestation of that right.

Mankind, the acknowledged ruler of the Earth, has little advantage over the other life-forms he shares existence with. As pointed out in the play *Inherit the Wind*, the horse is swifter, the mosquito more prolific, even a simple sponge is more durable. What separates mankind from other species is his simple brain-power: his ability to think.

The founding fathers of America recognized the fatal flaw of other nations— foolish monarchs who claimed absolute authority over their subjects Dictatorial societies have the same root cause of their downfall— the attempts of squelching out personal opinion.

Voting celebrates the freedom the nation received on July 4, 1776. Voting is not a duty or a chore, it is a priveledge that we as humans have as our only advantage. We have the right and fortunantely because of democratic society, the freedom to think.

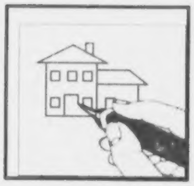
Ideas for Planning Your Writing

To plan your writing, you could:

Brainstorm

List lots of ideas; then choose the ones you want to use.

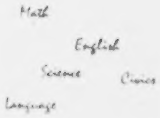
OR



Draw

Draw a picture that will give you ideas to use in your writing.

OR



Make a Web

Connect your ideas with lines.

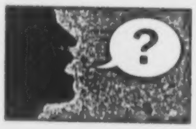
OR

Make an Outline

List your ideas in order.

Ideas for Reviewing Your Writing

After you write, you could think about:



Being Complete

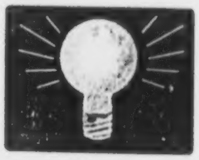
Did I say what I wanted to say about the topic?

Using Details

Do I need to add or take out details?

Putting Parts in Order

Do the parts fit together?



Being Clear

Did I use complete sentences?

Did I use correct punctuation?

Will people understand what I wrote?

Ideas for Planning Your Writing

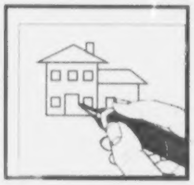
To plan your writing, you could do one or more of the following:

Brainstorm

List lots of ideas; choose which ones to use.

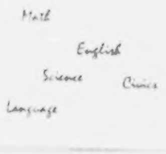
Imagine

Imagine talking about your topic with someone.



Draw

Draw a picture or a diagram of your topic.



Web

Draw lines between ideas to connect them.

Outline

Organize ideas into main points and subpoints.

Ideas for Reviewing Your Writing

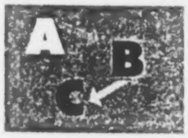
After writing, think about the following:

Purpose

Have I said what I want to say?

Development

Do I need to add more details?
Do I need to take out some details?

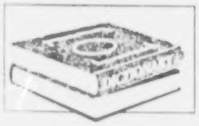


Organization

Are the parts in the right order?
Do the parts fit together?

Clarity

Will my audience understand?
Is my writing easy to read?

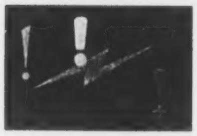


Correctness

Grammar?
Punctuation?
Spelling?
Capitalization?

Ideas for Planning Your Writing

To plan and organize your writing, you could do one or more of the following:

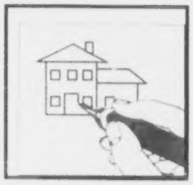


Brainstorm

List lots of ideas related to your topic; then choose which ones you want to use.

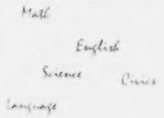
Imagine

Imagine talking about your topic with someone to sort out your ideas.



Draw

Draw a picture or a diagram of your topic or your ideas.



Web

Organize your thoughts by drawing lines between ideas to connect them.

Outline

Organize your ideas into main points and subpoints.

Ideas for Reviewing Your Writing

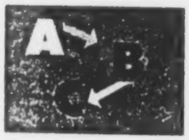
To review what you have written, you could think about the following:

Purpose

Have I said what I want to say about the topic?

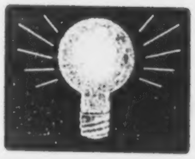
Development

Do I need to develop my ideas by adding details or do I need to take out some details?



Organization

Are the sections of my writing clearly connected and in the right order?



Clarity

Will my audience understand what I wrote?

Correctness

Have I checked for correctness in
- grammar?
- punctuation?
- spelling?

Item Maps

The NAEP writing scale summarizes student performance at grades 4, 8, and 12 on the 25-minute writing prompts that compose each scale. Some prompts are more difficult than others, and some performances in response to the prompts are more skilled than others. One way to interpret the meaning of the 0-to-300 writing scale is to show, for various score points, what level of performance on different writing prompts can be expected of students. This description of score points in terms of item performance is an item map. For a particular prompt, the item map shows the point on a scale at which students are likely to attain a particular rating on the six-level scoring guides.

An example of how the item maps present information on the relative difficulty of prompts within a grade level may be helpful. Figure 6.4 shows the item map for three fourth-grade prompts. For the narrative prompt "Castle," those with writing scores at or above 200 on the scale are expected to be able to write responses that were rated "Skillful" or better. For the informative prompt "Favorite Object," those with writing scores at or above 215 on the scale are expected to be able to write responses that were rated "Skillful" or better. In other words, the "item maps" created by this process are visual representations, at each grade, of the writing performance expected of students at different score levels along the NAEP writing scale.[1] The technical procedure for creating item maps is explained in Appendix A.

The item maps shown on the following pages address the nine prompts released for this report (one for each purpose for writing at each grade). Figures 6.4 through 6.6 present item maps for grades 4, 8, and 12, respectively. All nine prompts are presented in Chapter 1.

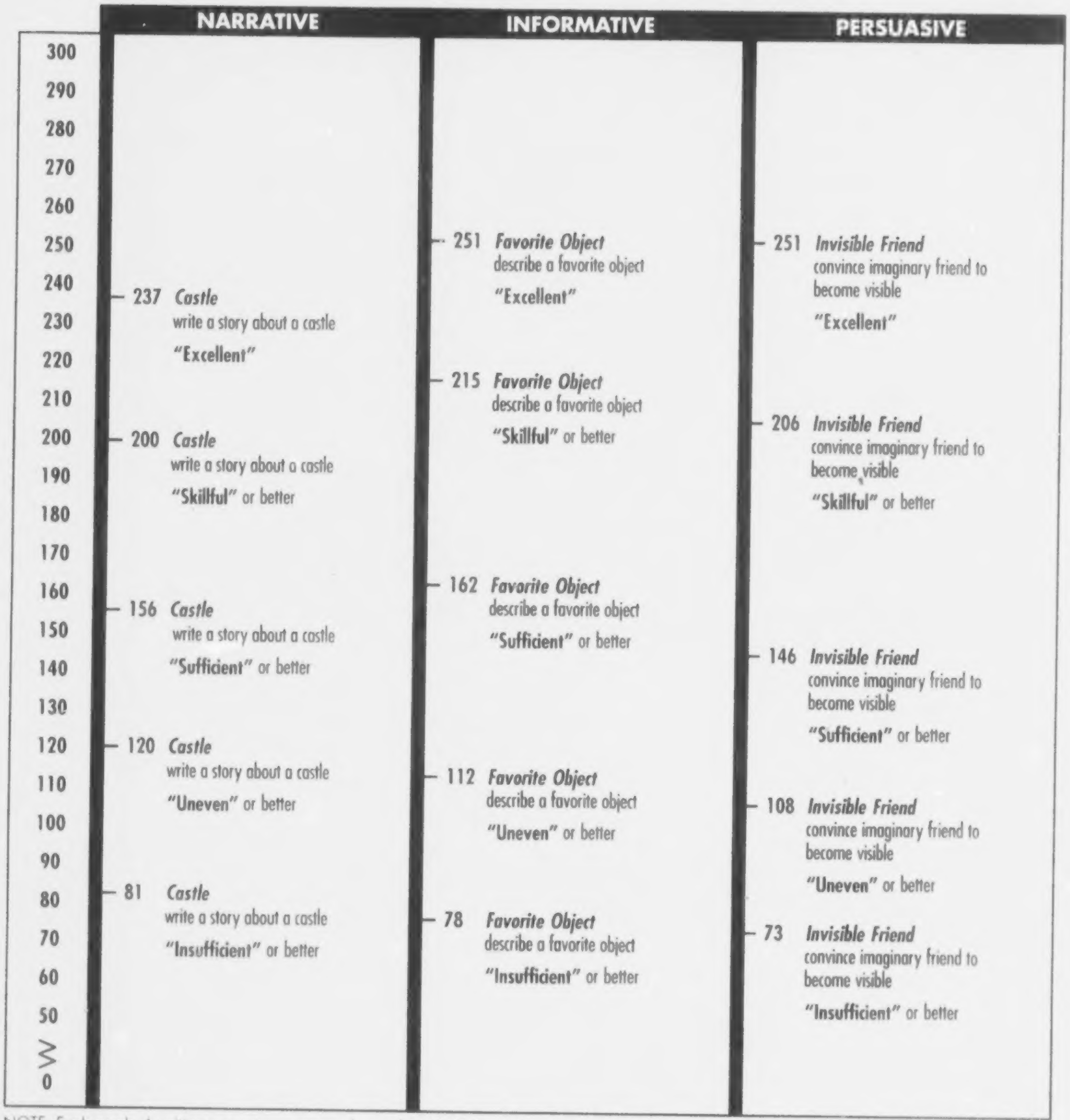
The item maps provide for each purpose for writing (narrative, informative, or persuasive) a selection of prompts, along with a brief description of each prompt, mapped at the point at which students are considered to have the skill to write a response of the indicated quality.

---

[1] Those with scores below this mapping point should not necessarily be considered unable to write "Skillful" responses to these prompts. The prompts are not mapped at the point that provides equal confidence that those above that point can do what the prompt requires while those below cannot. Details on the procedures used to develop item maps will be provided in the forthcoming *NAEP 1998 Technical Report.*

Figure 6.4

Item map of selected 25-minute writing prompts by purpose on the NAEP writing scale for grade 4: 1998



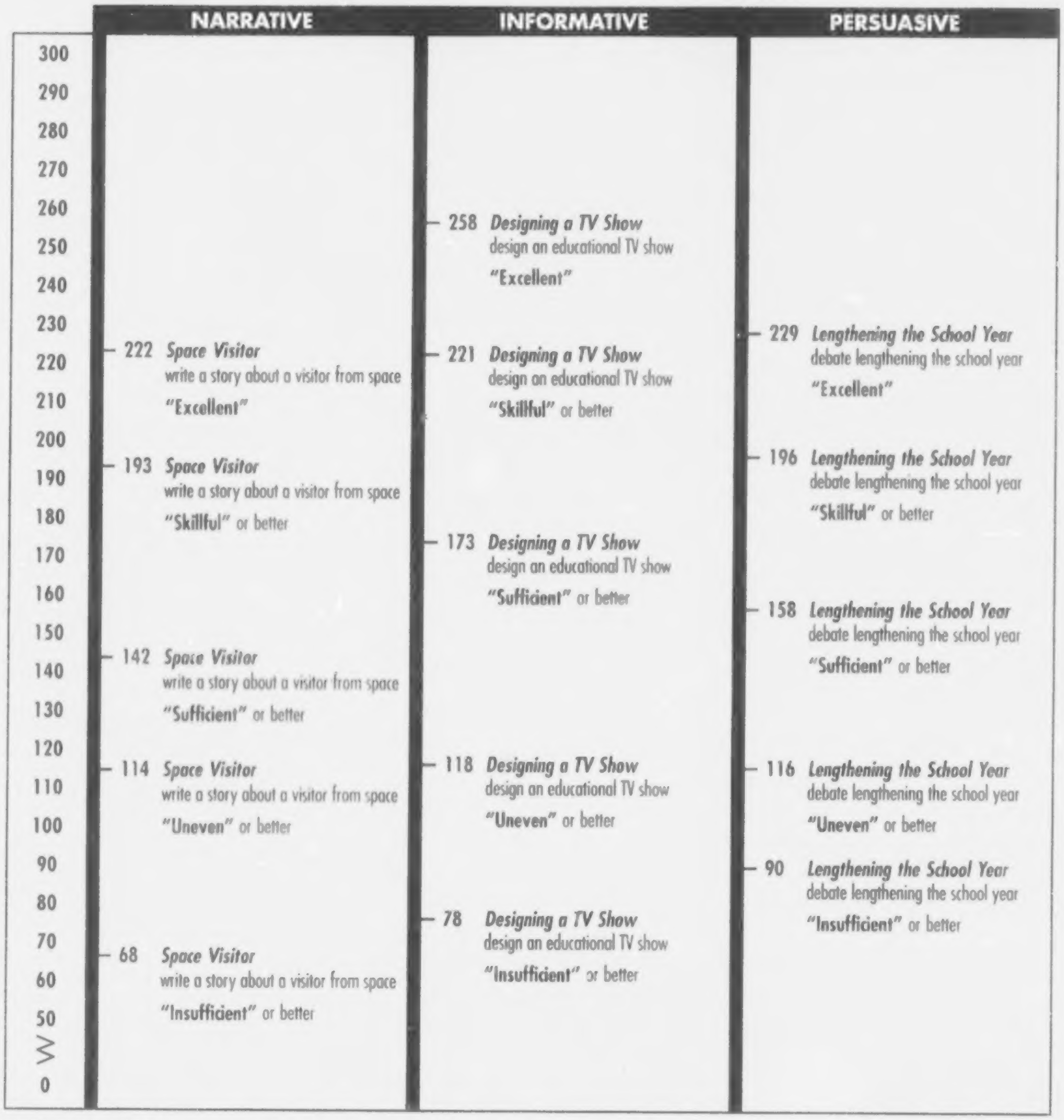
NOTE: Each grade 4 writing prompt was mapped onto the NAEP 0-to-300 writing scale. The map shows, for each level on the scoring guide from 2 ("Insufficient") through 6 ("Excellent"), the scale score attained by students who had a 65 percent probability of attaining that level on the scoring guide or higher. Only selected prompts are presented.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure 6.5

THE NATION'S REPORT CARD naep

Item map of selected 25-minute writing prompts by purpose on the NAEP writing scale for grade 8: 1998



NOTE: Each grade 8 writing prompt was mapped onto the NAEP 0-to-300 writing scale. The map shows, for each level on the scoring guide from 2 ("Insufficient") through 6 ("Excellent"), the scale score attained by students who had a 65 percent probability of attaining that level on the scoring guide or higher. Only selected prompts are presented.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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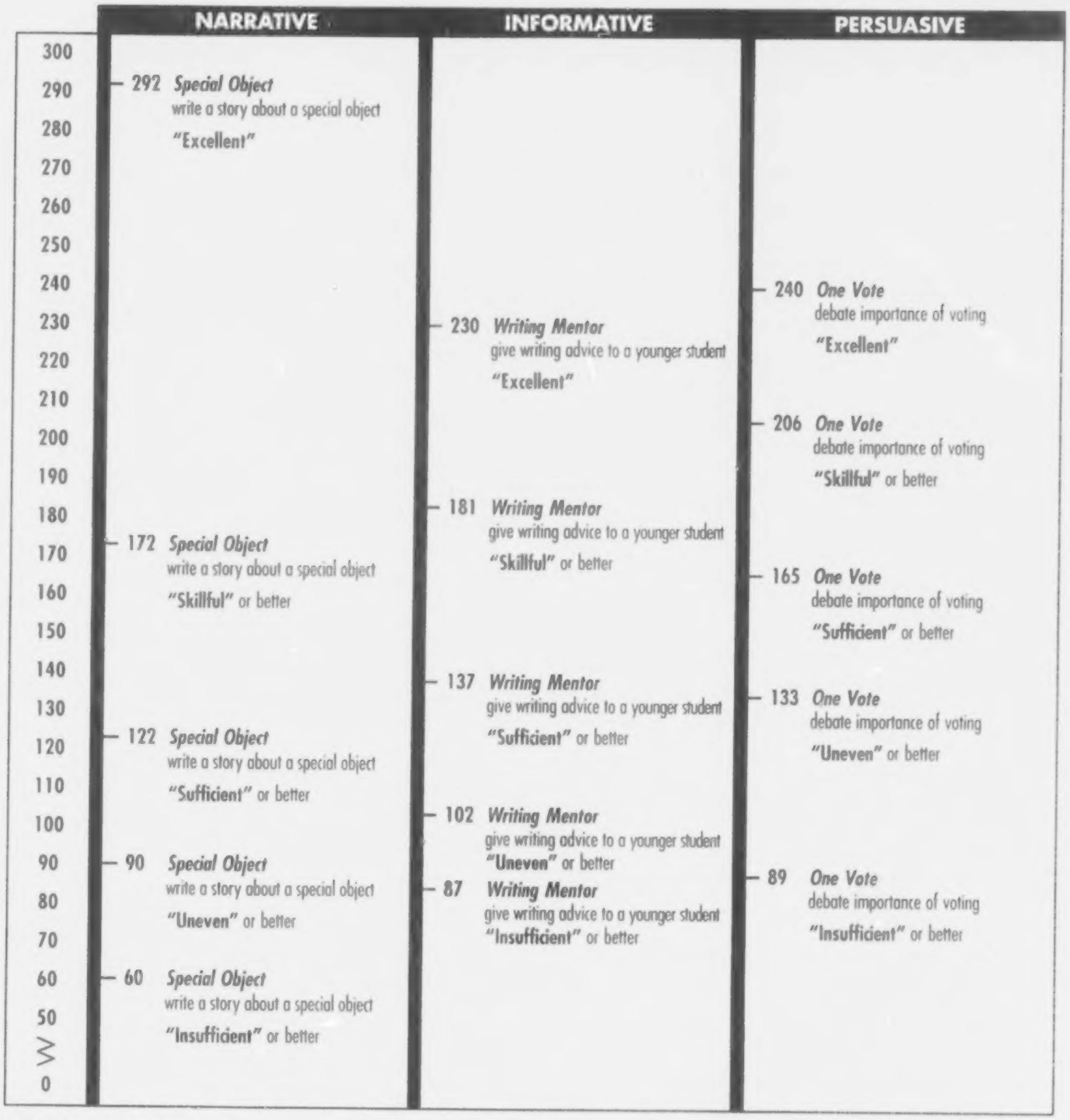
Figure 6.6

Item map of selected 25-minute writing prompts by purpose on the NAEP writing scale for grade 12: 1998



NOTE: Each grade 12 writing prompt was mapped onto the NAEP 0-to-300 writing scale. The map shows, for each level on the scoring guide from 2 ("Insufficient") through 6 ("Excellent"), the scale score attained by students who had a 65 percent probability of attaining that level on the scoring guide or higher. Only selected prompts are presented.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Summary

- Across all 25-minute prompts in the assessment, about 53 percent of fourth-grade student responses, 57 percent of eighth-grade responses, and 69 percent of twelfth-grade responses received ratings of "Sufficient" or better (in the upper half of the six-point scoring guides). These ratings should not be confused with achievement level results. It should be noted that achievement levels were set based on students' responses to both of the two 25-minute prompts they received.

APPENDIX A

Overview of Procedures Used for the NAEP 1998 Writing Assessment

Introduction

Conducting a large-scale assessment such as the National Assessment of Educational Progress (NAEP) entails the successful coordination of numerous projects, committees, procedures, and tasks. This appendix provides an overview of the NAEP 1998 writing assessment's primary components — framework, development, administration, scoring, and analysis. A more extensive review of the procedures and methods used in the writing assessment will be included in the forthcoming *NAEP 1998 Technical Report.*

The NAEP 1998 Writing Assessment

The writing framework underlying the NAEP 1998 writing assessment grew out of a consensus among educators and researchers about the nature of writing performance.

The framework's purpose was to provide a definition of writing on which to base the NAEP assessment. Developing this framework and the specifications that guided development of the assessment involved the critical input of many people, including educators, administrators, state and local government representatives, and members of the business community, the press, and the general public. The framework used in the 1992 writing assessment was forged by a consensus process managed by the Center for Research on Evaluation, Standards, and Student Testing (CRESST) for the National Assessment Governing Board. For the 1998 writing assessment, the Governing Board contracted with American College Testing (ACT) to augment the 1992 framework with a set of writing assessment and exercise specifications that led to the development of new writing prompts and scoring guides. As a result, the NAEP 1998 writing assessment is not comparable to the 1992 NAEP writing assessment, and it is not possible to track trends in writing performance back to 1992.

The framework sets forth a broad definition of writing for three major purposes: narrative, informative, and persuasive. While other types of writing could have been included, the developers of the framework believed that, for the purpose of monitoring student achievement (as opposed to creating individual diagnostic assessments), three broad types of writing were appropriate. The framework emphasizes the importance of being able to produce a variety of written works to suit different purposes and audiences. The framework views writing as a dynamic process through which the writer constructs meaning.

The assessment framework not only specified that three purposes for writing be measured, but also specified the percentage of the writing prompts in the assessment that should be devoted to each. The actual percentage distributions of writing prompts in the assessment are listed in Table i.1 on page 5 of the Introduction. That table also shows the number of prompts at each grade level for each purpose. Each prompt received equal weight in the composition of the NAEP scale for each grade. These target percentages vary by grade level according to what was deemed developmentally appropriate for each grade. The table refers only to the 25-minute prompts.

The grade 4 assessment consisted of twenty 25-minute prompts. Each fourth-grade student responded to two prompts. At grade 4, there were a total of 8 narrative, 7 informative, and 5 persuasive prompts. At each of grades 8 and 12, there were twenty 25-minute prompts and three 50-minute prompts (one for each purpose for writing: narrative, informative, and persuasive), for a total of 23 prompts at grade 8 and 23 prompts at grade 12. At grade 8, the 25-minute prompts were distributed as follows: 7 narrative, 7 informative, and 6 persuasive prompts. At grade 12, the distribution of 25-minute prompts was 5 narrative, 7 informative, and 8 persuasive prompts.

The Assessment Design

The same test booklets were used for the national and state assessments. Students received test booklets containing either two 25-minute writing prompts or a single 50-minute writing prompt. For the state assessments, only booklets with 25-minute prompts were used. At grade 4, there were only 25-minute prompts. All of the student responses to the writing prompts were rated according to a six-level scoring guide. In addition, the test booklets contained general background questions and writing-specific background questions.

The assessment design allowed for maximum coverage of the writing domain at each grade, while minimizing the time burden for any one student. This was accomplished through the use of matrix sampling of prompts, in which each student is given only 2 of the 20 or more prompts at each grade level. Representative samples of students respond to each prompt, so that the aggregate results across the entire assessment allow for broad reporting of writing abilities for the targeted population.

In addition to matrix sampling, the assessment design utilized a procedure for distributing booklets that controlled for position and context effects. Students received different prompts in their booklets according to a procedure called "partially balanced incomplete block (pBIB) spiraling." This procedure assigned prompts in a manner that balanced the positioning of prompts across booklets. The test booklets were also constructed to minimize overlap in themes between two prompts in a booklet. The "spiraling" designation means that, when distributed to students, the test booklets are ordered in such a way that typically only a few students in any assessment session receive the same booklet.

In addition to the student assessment booklets, three other instruments provided data relating to the assessment: a teacher questionnaire, a school questionnaire, and a Students with Disabilities/Limited English Proficiency (SD/LEP) questionnaire. The SD/LEP student questionnaire was completed by a school staff member knowledgeable about those students who were selected to participate in the assessment and who were identified as 1) having an Individualized Education Plan (IEP) or equivalent plan (for reasons other than being gifted or talented); or 2) being limited English proficient (LEP).

An SD/LEP student questionnaire was completed for each identified student, regardless of whether the student participated in the assessment. Each SD/LEP questionnaire took approximately three minutes to complete and asked about the student and the special programs in which he or she participated.

National and State Samples

The national and regional results presented in this report are based on nationally representative probability samples of fourth-, eighth-, and twelfth-grade students. The samples were selected by use of a complex multistage design that involved sampling students from selected schools within selected geographic areas across the country. The sample design had the following stages:

1. selection of geographic areas (a county, group of counties, or metropolitan statistical area);
2. selection of schools (public and nonpublic) within the selected areas; and
3. selection of students within selected schools.

Each selected school that participated in the assessment and each student assessed represent a portion of the population of interest. Sampling weights are needed to make valid inferences between the student samples and the respective populations from which they were drawn. Sampling weights account for disproportionate representation due to the oversampling of students who attend schools with high concentrations of Black and/or Hispanic students and of students who attend nonpublic schools. Among other uses, sampling weights also account for lower sampling rates for very small schools.

Table A.1 provides a summary of the national school and student participation rates for the NAEP 1998 writing assessment. For those students who received 25-minute prompts, participation rates are presented for both public and nonpublic schools, individually and combined. At grade 8, the number of students who received 50-minute prompts was 4,941 public school and 1,068 nonpublic school students, for a total of 6,009 students. At grade 12, 4,821 public school and 983 nonpublic school students received 50-minute prompts, for a total of 5,804 students. The 50-minute prompts were given only to students in the national sample, not to students in the state-by-state sample.

The overall response rate (the product of the weighted school participation rate before substitution and the weighted student participation rate) for grade 12 fell below the NCES reporting target of 70 percent. As a result, the background characteristics of both responding schools and all schools were compared to determine whether there was bias evident. The similarities in the distribution lend support to the conclusion that the data are not seriously biased by these low response rates.

Table A.1

NAEP 1998 school and student participation rates for 25-minute writing prompts for the nation: Grades 4, 8, and 12 public schools, nonpublic schools, and combined

	Weighted school participation				
	Percentage before substitutes	Percentage after substitutes	Total number of schools participating	Weighted percentage student participation rate	Total number of students assessed
Grade 4					
Public	80	89	457	95	16,330
Nonpublic	79	86	221	95	3,486
Combined	80	89	678	95	19,816
Grade 8					
Public	76	84	419	92	17,005
Nonpublic	82	88	283	96	3,581
Combined	77	85	702	92	20,586
Grade 12					
Public	70	79	440	79	16,221
Nonpublic	68	73	130	91	3,284
Combined	70	78	570	80	19,505

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

The results of the 1998 state assessment in writing provided in this report are based on state-level samples of eighth-grade students. The samples of both public and nonpublic school eighth-grade students were selected based on a two-stage sample design that entailed selecting schools within participating jurisdictions and then selecting students within schools. The first-stage samples of schools were selected with probability proportional to the eighth-grade enrollment in those schools. Special procedures were used for jurisdictions that have many small schools and for jurisdictions that have a small number of schools.

As with the national samples, the jurisdiction samples were weighted to allow for valid inferences about the populations of interest. Tables A.2a and A.2b contain the unweighted number of participating schools and students as well as weighted school and student participation rates. Two weighted school participation rates are provided for each jurisdiction. The first rate is the weighted percentage of schools participating in the assessment before substitution. This rate is based only on the number of schools that were initially selected for the assessment. The numerator of this rate is the sum of the number of students represented by each initially selected school that participated in the assessment. The denominator is the sum of the number of students represented by each of the initially selected schools that had eligible students enrolled. This rate included both participating and nonparticipating schools.

The second school participation rate is the weighted participation rate after substitution. The numerator of this rate is the sum of the number of students represented by each of the participating schools, whether originally selected or substituted. The denominator is the same as that for the weighted participation rate for the initial sample. This statement means that for a given jurisdiction, the weighted participation rate after substitution is at least as great as the weighted participation rate before substitution.

Also presented in Tables A.2a and A.2b are the weighted percentages of students who participated after makeup sessions were completed. In these tables, the rate reflects the percentage of the eligible student population from participating schools within the jurisdiction, and that percentage represents the students who participated in the assessment in either an initial session or a makeup session. The numerator of this rate is the sum, across all assessed students, of the number of students that each selected student who was eligible to participate represents, including students who did not participate.

Table A.2a

NAEP 1998 school and student participation rates for the nation and the states: Grade 8 public schools

	Weighted school participation: Percentage before substitutes	Weighted school participation: Percentage after substitutes	Total number of schools participating	Weighted percentage student participation rate	Total number of students assessed
Nation	76	84	419	92	17,005
States					
Alabama	77	90	101	92	2,449
Arizona	97	98	104	89	2,499
Arkansas	93	97	105	92	2,462
California [2]	72	83	88	92	2,157
Colorado	97	97	106	91	2,697
Connecticut	99	99	104	90	2,592
Delaware	100	100	30	91	2,119
Florida	100	100	104	89	2,574
Georgia	97	100	104	90	2,605
Hawaii	100	100	49	92	2,647
Illinois [1]	65	80	88	92	2,145
Kentucky	87	87	89	93	2,341
Louisiana	92	100	112	91	2,653
Maine	97	97	98	91	2,508
Maryland	85	86	89	89	2,263
Massachusetts	89	89	92	92	2,399
Minnesota [2]	74	74	80	90	1,980
Mississippi	92	92	92	92	2,401
Missouri	93	97	108	92	2,621
Montana [2]	75	78	62	93	2,024
Nevada	99	99	55	89	2,553
New Mexico	96	96	89	89	2,426
New York [2]	71	77	81	87	1,981
North Carolina	100	100	104	93	2,669
Oklahoma	100	100	101	92	2,258
Oregon	85	88	96	89	2,323
Rhode Island	100	100	50	89	2,516
South Carolina	94	94	99	91	2,469
Tennessee	87	89	95	91	2,275
Texas	96	96	100	93	2,530
Utah	100	100	94	90	2,588
Virginia	100	100	103	91	2,605
Washington	87	87	92	89	2,286
West Virginia	100	100	106	91	2,611
Wisconsin [2]	71	73	80	92	2,006
Wyoming	100	100	65	92	2,726
Other Jurisdictions					
District of Columbia	100	100	31	85	1,592
DDESS	100	100	12	95	650
DoDDS	100	100	55	93	2,182
Virgin Islands	100	100	6	87	614

[1] The jurisdiction's weighted public school participation rate for the initial sample was less than 70%.

[2] The jurisdiction's weighted public school participation rate for the initial sample of schools was below 85%, AND the weighted school participation rate after substitution was below 90%.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table A.2b

NAEP 1998 school and student participation rates for the nation and the states: Grade 8 nonpublic schools

	Weighted school participation		Total number of schools participating	Weighted percentage student participation rate	Total number of students assessed
	Percentage before substitutes	Percentage after substitutes			
Nation	82	88	283	96	3,581
States					
Arizona [1]	67	76	7	96	130
Arkansas [2]	73	83	9	96	140
California [2]	84	84	9	98	224
Colorado [1]	61	78	8	93	137
Connecticut [2]	70	70	13	93	240
Florida [2]	75	85	11	94	213
Georgia	88	88	9	94	144
Illinois [1]	59	59	14	96	314
Louisiana	90	90	27	97	580
Maine [1]	58	58	5	96	95
Maryland [2]	75	79	16	96	350
Massachusetts [2]	70	70	15	92	263
Missouri [1]	60	69	16	96	303
Montana	91	100	13	96	206
Nebraska	92	92	21	97	354
Nevada	95	95	7	92	108
New Mexico [2]	74	80	11	96	204
New York [2]	80	80	19	96	380
North Carolina [2]	78	78	8	95	248
Rhode Island [2]	82	82	20	96	434
Washington	87	92	8	94	155
West Virginia	85	85	7	98	117
Wyoming [3]	77	77	6	95	61
Other Jurisdictions					
Virgin Islands [2]	82	82	10	98	193

[1] The jurisdiction's nonpublic school weighted participation rate for the initial sample was less than 70%.

[2] The jurisdiction's nonpublic school weighted participation rate for the initial sample of schools was below 85%, AND the weighted school participation rate after substitution was below 90%.

[3] The jurisdiction's total number of assessed students did not meet the minimum requirement of at least 62.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Standards for Sample Participation

In carrying out the 1998 state assessment program, the National Center for Education Statistics (NCES) established participation rate standards that jurisdictions were required to meet in order for their results to be reported (see notations in Tables A.3a and A.3b). NCES also established additional standards that required the notation of published results for jurisdictions whose sample participation rates were low enough to raise concerns about their representativeness.

One jurisdiction, Illinois, failed to meet the initial public school participation rate of 70 percent. For this state, results for eighth-grade public school students are not reported in this or any report of NAEP 1998 state writing assessment findings. Several other jurisdictions whose results were published received a notation to indicate possible nonresponse bias.

The following five jurisdictions failed to meet the initial nonpublic school participation rate of 70 percent: Arizona, Colorado, Illinois, Maine, and Missouri. For nonpublic school participation, Wyoming failed to meet the requirement of a sample size of 62 students. For these jurisdictions, results for eighth-grade nonpublic school students are not reported in this or any report of NAEP 1998 state writing assessment findings. As with public schools, several other jurisdictions whose nonpublic school results were published received a notation to indicate nonresponse bias.

To help ensure adequate sample representation for each jurisdiction participating in the 1998 state assessment program, NAEP provided substitutes for nonparticipating public and nonpublic schools. (When possible, a substitute school was provided for each initially selected school that declined participation.) For jurisdictions that used substitute schools, the assessment results were based on the student data from all schools participating from both the original sample and the substitute schools (unless an initial school and its substitute eventually participated, in which case only the data from the initial school were used). For jurisdictions that did not use substitute schools, the participation rates were based on participating schools from the original sample.

NCES standards require weighted school participation rates before substitution of at least 85 percent to guard against potential bias due to school nonresponse. The NCES standards do not explicitly address the use of substitute schools to replace initially selected schools that declined to participate in the assessment. However, considerable technical consideration has been given to this issue. Even though the characteristics of the substitute schools were matched as closely as possible to the characteristics of the initially selected schools, substitution does not entirely eliminate the possibility of bias because of the nonparticipation of initially selected schools. Thus, for the weighted school participation rates that included substitute schools, the guideline was set at 90 percent. This consideration is expressed in the following guideline:

> *A jurisdiction will receive a notation if its weighted participation rate for the initial sample of schools was below 85 percent AND the weighted school participation rate after substitution was below 90 percent.*

Five jurisdictions did not meet this guideline for public schools: California, Minnesota, Montana, New York, and Wisconsin. Eleven jurisdictions did not meet this guideline for nonpublic schools: Arkansas, California, Connecticut, Florida, Maryland, Massachusetts, New Mexico, New York, North Carolina, Rhode Island, and Virgin Islands.

The NCES standards further specify that attention should be given to the representativeness of the sample coverage. Thus, inadequate representation of an important segment of a jurisdiction's population is of concern, regardless of the overall participation rate. This consideration is expressed in the following guideline:

> *A jurisdiction that is not already receiving a notation for problematic overall school or student participation rates will receive a notation if the sampled students within participating schools included a class of students with similar characteristics that had a weighted student response rate of below 80 percent, and from which the nonresponding students together accounted for more than 5 percent of the jurisdiction's weighted assessable student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by the age of the students, whether or not the student was classified as a student with a disability (SD) or of limited English proficiency (LEP), and the type of assessment session (monitored or unmonitored). In addition, for public schools, classes of schools were determined by school level of urbanization, minority enrollment, and median household income of the area in which the school is located. For nonpublic schools, classes of schools were determined by type and location of schools.*

In the 1998 NAEP writing assessment, there were no states that failed to meet this guideline.

The NCES guidelines used to report results in the state assessments, and the guidelines for notation when there is some risk of nonresponse bias in the reported results, are presented in the tables of the following section.

Guidelines for Notations 1, 2, and 3:

The publication of NAEP results

The conditions that will result in the publication of a jurisdiction's results are presented below.

Guideline 1 — Publication of Public School Results:
A jurisdiction will have its public school results published in the *NAEP 1998 Writing Report Card* (or in other reports that include all state-level results) if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent. Similarly, a jurisdiction will receive a separate NAEP State Report if and only if its weighted participation rate for the initial sample of public schools is greater than or equal to 70 percent.

Guideline 2 — Publication of Nonpublic School Results:
A jurisdiction will have its nonpublic school results published in the *NAEP 1998 Writing Report Card* (or in other reports that include all state-level results) if and only if its weighted participation rate for the initial sample of nonpublic schools is greater than or equal to 70 percent and meets minimum sample size requirements.[1] A jurisdiction eligible to receive a separate NAEP State Report under Guideline 1 will have its nonpublic school results included in that report if and only if that jurisdiction's weighted participation rate for the initial sample of nonpublic schools is greater than or equal to 70 percent and meets minimum sample size requirements. If a jurisdiction meets Guideline 2 but fails to meet Guideline 1, a separate State Report will be produced containing only nonpublic school results.

Guideline 3 — Publication of Combined Public and Nonpublic School Results:
A jurisdiction will have its combined results published in the *NAEP 1998 Writing Report Card* (or in other reports that include all state-level results) if and only if both Guidelines 1 and 2 are satisfied. Similarly, a jurisdiction eligible to receive a separate NAEP State Report under Guideline 1 will have its combined results included in that report if and only if Guideline 2 is also met.

Discussion: If a jurisdiction's public or nonpublic school participation rate for the initial sample of schools is below 70 percent, there is a substantial possibility that bias will be introduced into the assessment results. This possibility remains even after making statistical adjustments to compensate for school nonparticipation. There remains the likelihood that, in aggregate, the substitute schools are sufficiently dissimilar from the originals that they are replacing and represent too great a proportion of the population to discount such a difference. Similarly, the assumptions underlying the use of statistical adjustments to compensate for nonparticipation are likely to be significantly violated if the initial response rate falls below the 70 percent level. Guidelines 1, 2, and 3 take this into consideration. These guidelines are congruent with current NAGB policy, which requires that data for jurisdictions that do not have a 70 percent before-substitution participation rate be reported "in a different format," and with the Education Information Advisory Committee (EIAC) resolution, which calls for data from such jurisdictions not to be published.

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[1] Minimum sample size requirements for reporting nonpublic school data consist of two components: (1) a school sample size of six or more participating schools and (2) an assessed student sample size of at least 62.

The following guidelines concerning school and student participation rates in the NAEP state assessment program were established to address four significant ways in which nonresponse bias could be introduced into the jurisdiction sample estimates. Presented below are the conditions that will result in a jurisdiction's receiving a notation in the 1998 reports. Note that in order for a jurisdiction's results to be published with no notations, that jurisdiction must satisfy all guidelines.

Guidelines for Notations 4 and 5:

Reporting school and student participation rates with possible bias due to school nonresponse

Guideline 4 — Notation for Overall Public School Participation Rate: A jurisdiction that meets Guideline 1 will receive a notation if its weighted participation rate for the initial sample of public schools was below 85 percent and the weighted public school participation rate after substitution was below 90 percent.

Guideline 5 — Notation for Overall Nonpublic School Participation Rate: A jurisdiction that meets Guideline 2 will receive a notation if its weighted participation rate for the initial sample of nonpublic schools was below 85 percent and the weighted nonpublic school participation rate after substitution was below 90 percent.

Discussion: For jurisdictions that did not use substitute schools, the participation rates are based on participating schools from the original sample. In these situations, the NCES standards specify weighted school participation rates of at least 85 percent to guard against potential bias due to school nonresponse. Thus the first part of these guidelines, referring to the weighted school participation rate for the initial sample of schools, is in direct accordance with NCES standards.

To help ensure adequate sample representation for each jurisdiction participating in the NAEP 1998 state assessments, NAEP provided substitutes for nonparticipating public and nonpublic schools. For jurisdictions that used substitute schools, the assessment results will be based on the student data from all schools participating from both the original sample and the list of substitutes (unless both an initial school and its substitute eventually participated, in which case only the data from the initial school will be used).

The NCES standards do not explicitly address the use of substitute schools to replace initially selected schools that decide not to participate in the assessment. However, considerable technical consideration was given to this issue. Even though the characteristics of the substitute schools were matched as closely as possible to the characteristics of the initially selected schools, substitution does not entirely eliminate bias due to the nonparticipation of initially selected schools. Thus, for the weighted school participation rates including substitute schools, the guidelines were set at 90 percent.

If a jurisdiction meets either standard (i.e., 85 percent or higher prior to substitution or 90 percent or higher after substitution), there will be no notation for the relevant overall school participation rate.

Guidelines for Notations 6 and 7:

Important segments of the jurisdiction's student population that must be adequately represented to avoid possible nonresponse bias

Guideline 6 — Notation for Strata-Specific Public School Participation Rates: A jurisdiction that is not already receiving a notation under Guideline 4 will receive a notation if the sample of public schools included a class of schools with similar characteristics that had a weighted participation rate (after substitution) of below 80 percent, and from which the nonparticipating schools together accounted for more than 5 percent of the jurisdiction's total weighted sample of public schools. The classes of schools from each of which a jurisdiction needed minimum school participation levels were determined by degree of urbanization, minority enrollment, and median household income of the area in which the school is located.

Guideline 7 — Notation for Strata-Specific Nonpublic School Participation Rates: A jurisdiction that is not already receiving a notation under Guideline 5 will receive a notation if the sample of nonpublic schools included a class of schools with similar characteristics that had a weighted participation rate (after substitution) of below 80 percent, and from which the nonparticipating schools together accounted for more than 5 percent of the jurisdiction's total weighted sample of nonpublic schools. The classes of schools from each of which a jurisdiction needed minimum school participation levels were determined by type of nonpublic school (Catholic versus non-Catholic) and location (metropolitan versus nonmetropolitan).

Discussion: The NCES standards specify that attention should be given to the representativeness of the sample coverage. Thus, if some important segment of the jurisdiction's population is not adequately represented, it is of concern, regardless of the overall participation rate.

If nonparticipating schools are concentrated within a particular class of schools, the potential for substantial bias remains, even if the overall level of school participation appears to be satisfactory. Nonresponse adjustment cells for public schools have been formed within each jurisdiction, and the schools within each cell are similar with respect to minority enrollment, degree of urbanization, and/or median household income, as appropriate for each jurisdiction. For nonpublic schools, nonresponse adjustment cells are determined by type and location of school.

If the weighted response rate, after substitution, for a single adjustment cell falls below 80 percent, and more than 5 percent (weighted) of the sampled schools are nonparticipants from such a cell, the potential for nonresponse Bias is too great. These guidelines are based on the NCES standard for stratum-specific school response rates.

Guidelines for Notations 8 and 9: Possible student nonresponse bias

Guideline 8 — Notation for Overall Student Participation Rate in Public Schools:
A jurisdiction that meets Guideline 1 will receive a notation if the weighted student response rate within participating public schools was below 85 percent.

Guideline 9 — Notation for Overall Student Participation Rate in Nonpublic Schools:
A jurisdiction that meets Guideline 2 will receive a notation if the weighted student response rate within participating nonpublic schools was below 85 percent.

Discussion: These guidelines follow the NCES standard of 85 percent for overall student participation rates. The weighted student participation rate is based on all eligible students from initially selected or substitute schools who participated in the assessment in either an initial session or a make-up session. If the rate falls below 85 percent, the potential for bias due to students' nonresponse is too great.

Guidelines for Notations 10 and 11:

Possible nonresponse bias from inadequately represented strata

Guideline 10 — Notation for Strata-Specific Student Participation Rates in Public Schools:

A jurisdiction that is not already receiving a notation under Guideline 8 will receive a notation if the sampled students within participating public schools included a class of students with similar characteristics that had a weighted student response rate of below 80 percent, and from which the nonresponding students together accounted for more than 5 percent of the jurisdiction's weighted assessable public school student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by the age of the student, whether or not the student was classified as a student with a disability (SD) or of limited English proficiency (LEP), and the type of assessment session (monitored or unmonitored), as well as school level of urbanization, minority enrollment, and median household income of the area in which the school is located.

Guideline 11 — Notation for Strata-Specific Student Participation Rates in Nonpublic Schools:

A jurisdiction that is not already receiving a notation under Guideline 9 will receive a notation if the sampled students within participating nonpublic schools included a class of students with similar characteristics that had a weighted student response rate of below 80 percent, and from which the nonresponding students together accounted for more than 5 percent of the jurisdiction's weighted assessable nonpublic school student sample. Student groups from which a jurisdiction needed minimum levels of participation were determined by the age of the student, whether or not the student was classified as a student with a disability (SD) or of limited English proficiency (LEP), and the type of assessment session (monitored or unmonitored), as well as type and location of school.

Discussion: These guidelines address the fact that if nonparticipating students are concentrated within a particular class of students, the potential for substantial bias remains, even if the overall student participation level appears to be satisfactory. Student nonresponse adjustment cells have been formed using the school-level nonresponse adjustment cells, together with the student's age and the nature of the assessment session (unmonitored or monitored).

If the weighted response rate for a single adjustment cell falls below 80 percent, and more than 5 percent (weighted) of the invited students who do not participate in the assessment are from such a cell, the potential for nonresponse bias is too great. These guidelines are based on the NCES standard for stratum-specific student response rates.

Students with Disabilities (SD) and Limited English Proficient (LEP) Students

It is NAEP's intent to assess all selected students from the target population. Therefore, every effort is made to ensure that all selected students who are capable of participating in the assessment are assessed. Some students sampled for participation in NAEP can be excluded from the sample according to carefully defined criteria. These criteria were revised in 1996 to more clearly communicate a presumption of inclusion except under special circumstances. According to these criteria, students with Individualized Education Programs (IEPs) were to be included in the NAEP assessment except in the following cases:

1. The school's IEP team determined that the student could not participate, OR,
2. The student's cognitive functioning was so severely impaired that she or he could not participate.

In cases where a student's IEP required that the student be tested with an accommodation or adaptation and stated that the student could not demonstrate his or her knowledge without that accommodation, the student was provided with the appropriate accommodation.

All LEP students receiving academic instruction in English for three years or more were to be included in the assessment. Those LEP students receiving instruction in English for less than three years were to be included unless school staff judged them as being incapable of participating in the assessment in English.

The reporting samples in the 1998 writing assessment used these criteria with provisions made for accommodations. Students with disabilities or with limited proficiency in English were included in the sample in the following way. At each grade, one test booklet with two prompts was designated as the one to be administered to students requiring accommodations (it was also given to students not requiring accommodations). For each grade, those two prompts were chosen because they would not present any special problems for students with disabilities (for example, the prompts chosen did not include visual materials, given that visually impaired students would likely participate in the assessment). Students were given accommodations that matched as closely as possible those provided them in other testing situations by their schools or instructors (most frequently, extended time for responding). Those students who did not typically need accommodations for testing were not provided with them.

All the scale score and achievement level information in this report, then, is based on a student sample that includes students who were provided with accommodations. The responses of students assessed with accommodations were

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evaluated according to the same criteria as those of students assessed without accommodations. Data on individual prompts are presented without including data on the performance of accommodated students, however. This exception was made because only a few prompts were presented to students given accommodations, and comparing those prompts to other prompts given without accommodations would not be appropriate.

Table A.3 shows the number and percentage of students with disabilities and students with limited English proficiency included in the national sample for the NAEP 1998 writing assessment.

Table A.3

Students with disabilities and limited English proficient students in NAEP writing assessment, national sample (public and nonpublic schools combined): 1998

	Identified		Excluded		Assessed		Assessed under standard conditions		Assessed with accommodations	
	Number	Weighted percentage of students sampled	Number	Weighted percentage of students sampled	Number	Weighted percentage of students sampled	Number	Weighted percentage of students sampled	Number	Weighted percentage of students sampled
Grade 4	3,621	15	1,450	5	2,171	10	1,425	6	746	4
Grade 8	2,935	13	877	4	2,058	9	1,380	6	678	3
Grade 12	1,975	8	658	2	1,317	6	991	5	326	1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Participation rates for the students with disabilities and LEP samples are presented in Tables A.4a through A.6b. Tables A.4a and A.4b show the participation rates for SD and LEP students combined in public and nonpublic schools, respectively. These tables include as the denominator the total number of all students who were identified for the assessment, including assessed and excluded students. The columns then show the percentages of SD and LEP students who were identified for the assessment, with that percentage broken out by those excluded and those assessed. The percentage of SD and LEP students assessed is then further broken out into those assessed without accommodations and those assessed with accommodations. Tables A.5a and A.5b and A.6a and A.6b present the same information for SD students only and LEP students only, respectively.

Table A.4a

NAEP 1998 percentage of students by SD/LEP status and by assessment administration conditions for the nation and the states: Grade 8 public schools

		Identified SD/LEP		**Assessed SD/LEP**		
	Identified SD/LEP	**Excluded**	**Assessed**	**Assessed under standard conditions**	**Assessed with accommodations**	**All students assessed under standard conditions***
Nation	14	4	10	7	3	93
States						
Alabama	12	6	6	5	1	93
Arizona	17	5	12	10	2	93
Arkansas	13	6	7	5	1	92
California	23	6	17	15	2	92
Colorado	13	4	9	6	3	93
Connecticut	15	7	8	5	3	90
Delaware	14	3	11	8	3	94
Florida	16	5	11	9	2	93
Georgia	11	5	7	4	2	93
Hawaii	15	4	11	8	3	93
Illinois	12	4	8	6	2	94
Kentucky	10	2	7	3	4	93
Louisiana	13	5	8	3	5	90
Maine	14	5	8	5	3	91
Maryland	13	2	11	4	7	91
Massachusetts	17	5	12	7	5	90
Minnesota	14	3	11	8	3	94
Mississippi	9	5	5	4	1	95
Missouri	13	3	10	6	4	93
Montana	11	2	9	6	2	95
Nevada	16	6	10	8	3	92
New Mexico	23	6	17	14	3	91
New York	15	5	9	3	6	88
North Carolina	14	4	10	4	6	90
Oklahoma	13	9	5	4	1	91
Oregon	15	3	12	9	3	94
Rhode Island	17	4	13	10	3	93
South Carolina	12	5	7	5	2	93
Tennessee	13	4	9	8	1	95
Texas	19	6	13	10	2	91
Utah	10	4	6	5	1	95
Virginia	14	4	9	6	3	92
Washington	13	4	9	7	3	94
West Virginia	14	5	9	5	3	91
Wisconsin	11	4	7	4	3	93
Wyoming	9	2	7	5	2	96
Other Jurisdictions						
District of Columbia	13	6	7	6	1	93
DDESS	10	3	7	4	3	94
DoDDs	7	1	6	4	2	97
Virgin Islands	8	8	0	0	—	92

SD = Students with Disabilities (the term previously used was IEP)
LEP = Limited English Proficient students
— Indicates there were no students in this category
* Includes identified SD/LEP students and all other students assessed under standard conditions
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools
DoDDS: Department of Defense Dependents Schools (Overseas)
NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment. A student reported as belonging to both SD and LEP classifications is counted once.
Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table A.4b

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NAEP 1998 percentage of students by SD/LEP status and by assessment administration conditions for the nation and the states: Grade 8 nonpublic schools

		Identified SD/LEP		Assessed SD/LEP		
	Identified SD/LEP	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations	All students assessed under standard conditions*
Nation	2	0	2	1	1	99
States						
Arizona	15	9	6	5	1	90
Arkansas	1	1	—	—	—	99
California	0	—	0	0	—	100
Colorado	14	—	14	14	—	100
Connecticut	5	1	5	—	5	95
Florida	5	0	4	3	1	98
Georgia	1	1	—	—	—	99
Illinois	1	—	1	1	0	100
Louisiana	4	—	4	2	2	98
Maine	—	—	—	—	—	100
Maryland	1	—	1	1	1	100
Massachusetts	5	0	4	—	4	95
Missouri	2	—	2	1	1	99
Montana	3	1	2	1	2	98
Nebraska	2	—	2	0	2	98
Nevada	2	—	2	2	—	100
New Mexico	16	1	16	13	3	97
New York	9	2	7	6	0	[illegible]
North Carolina	2	1	2	1	1	99
Rhode Island	1	—	1	1	—	100
Washington	4	—	4	3	1	99
West Virginia	2	—	2	2	—	100
Wyoming	9	—	9	3	6	94
Other Jurisdictions						
Virgin Islands	—	—	—	—	—	100

SD = Students with Disabilities (the term previously used was IEP)

LEP = Limited English Proficient students

— Indicates there were no students in this category

* Includes identified SD/LEP students and all other students assessed under standard conditions.

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment. A student reported as belonging to both SD and LEP classifications is counted once.

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table A.5a

NAEP 1998 percentage of SD students for the nation and the states: Grade 8 public schools

		Identified SD		Assessed SD	
	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations
Nation	11	4	8	5	3
States					
Alabama	12	6	6	5	1
Arizona	9	3	6	4	2
Arkansas	12	5	7	5	1
California	7	3	5	3	2
Colorado	9	3	6	4	2
Connecticut	14	6	8	5	3
Delaware	13	3	10	7	3
Florida	12	4	9	7	2
Georgia	10	4	6	4	2
Hawaii	10	3	7	5	2
Illinois	10	3	6	4	2
Kentucky	9	2	7	2	4
Louisiana	13	5	8	3	5
Maine	13	5	8	5	3
Maryland	12	2	10	4	7
Massachusetts	15	3	12	6	5
Minnesota	11	2	8	6	2
Mississippi	9	5	5	4	1
Missouri	12	2	10	6	4
Montana	11	2	8	6	2
Nevada	11	4	7	4	2
New Mexico	15	4	11	7	3
New York	9	2	8	2	6
North Carolina	12	3	9	3	6
Oklahoma	12	8	4	3	1
Oregon	12	2	10	7	3
Rhode Island	14	3	10	8	2
South Carolina	12	5	7	5	2
Tennessee	12	4	8	7	1
Texas	14	5	9	7	2
Utah	8	3	5	4	1
Virginia	12	4	9	5	3
Washington	10	2	7	5	2
West Virginia	14	5	9	5	3
Wisconsin	10	4	6	4	3
Wyoming	9	2	7	5	2
Other Jurisdictions					
District of Columbia	10	5	5	4	1
DDESS	8	2	6	4	2
DoDDs	5	1	4	3	2
Virgin Islands	5	5	0	0	—

SD = Students with Disabilities (the term previously used was IEP)

— Indicates there were no students in this category

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Table A.5b

NAEP 1998 percentage of SD students for the nation and the states: Grade 8 nonpublic schools

		Identified SD		Assessed SD	
	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations
Nation	2	0	2	1	1
States					
Arizona	6	1	5	4	1
Arkansas	1	1	—	—	—
California	0	—	0	0	—
Colorado	14	—	14	14	—
Connecticut	5	1	5	—	5
Florida	5	0	4	3	1
Georgia	—	—	—	—	—
Illinois	1	—	1	1	0
Louisiana	4	—	4	2	2
Maine	—	—	—	—	—
Maryland	1	—	1	0	1
Massachusetts	5	0	4	—	4
Missouri	2	—	2	1	1
Montana	3	1	2	1	2
Nebraska	2	—	2	0	2
Nevada	2	—	2	2	—
New Mexico	10	1	9	6	3
New York	0	—	0	—	0
North Carolina	2	1	2	1	1
Rhode Island	1	—	1	1	—
Washington	4	—	4	3	1
West Virginia	2	—	2	2	—
Wyoming	9	—	9	3	6
Other Jurisdictions					
Virgin Islands	—	—	—	—	—

SD = Students with Disabilities (the term previously used was IEP)

— Indicates there were no students in this category.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment.

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table A.6a

NAEP 1998 percentage of LEP students for the nation and the states: Grade 8 public schools

		Identified LEP		Assessed LEP	
	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations
Nation	3	1	2	2	0
States					
Alabama	1	0	0	0	0
Arizona	10	3	7	6	1
Arkansas	1	1	0	0	0
California	18	4	13	13	0
Colorado	4	2	3	2	1
Connecticut	2	2	0	0	—
Delaware	1	0	1	1	0
Florida	4	1	3	2	0
Georgia	2	1	1	1	0
Hawaii	6	2	4	3	1
Illinois	3	1	2	2	0
Kentucky	1	0	0	0	—
Louisiana	1	0	0	0	0
Maine	1	0	0	0	—
Maryland	1	0	1	0	0
Massachusetts	2	2	1	0	0
Minnesota	4	1	3	2	1
Mississippi	0	0	0	0	—
Missouri	1	0	0	0	0
Montana	0	0	0	0	0
Nevada	7	3	4	3	1
New Mexico	11	3	7	7	1
New York	5	3	2	1	0
North Carolina	2	1	1	1	0
Oklahoma	1	1	1	1	—
Oregon	3	1	2	1	0
Rhode Island	4	1	2	2	1
South Carolina	0	0	0	0	—
Tennessee	1	0	1	1	—
Texas	7	2	4	4	0
Utah	2	1	1	1	0
Virginia	2	1	1	1	0
Washington	4	1	2	2	1
West Virginia	0	0	—	—	—
Wisconsin	2	1	1	1	0
Wyoming	0	0	0	—	0
Other Jurisdictions					
District of Columbia	4	2	2	2	0
DDESS	2	1	1	—	1
DoDDs	2	1	1	1	0
Virgin Islands	3	3	—	—	—

LEP = Limited English Proficient students

— Indicates there were no students in this category.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment.

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table A.6b

NAEP 1998 percentage of LEP students for the nation and the states: Grade 8 nonpublic schools

		Identified LEP		Assessed LEP	
	Identified	Excluded	Assessed	Assessed under standard conditions	Assessed with accommodations
Nation	0	0	0	0	0
States					
Arizona	10	9	1	1	—
Arkansas	—	—	—	—	—
California	—	—	—	—	—
Colorado	1	—	1	1	—
Connecticut	—	—	—	—	—
Florida	—	—	—	—	—
Georgia	1	1	—	—	—
Illinois	—	—	—	—	—
Louisiana	—	—	—	—	—
Maine	—	—	—	—	—
Maryland	0	—	0	0	—
Massachusetts	1	—	1	—	1
Missouri	0	—	0	—	0
Montana	—	—	—	—	—
Nebraska	1	—	1	—	1
Nevada	—	—	—	—	—
New Mexico	9	—	9	7	2
New York	8	2	6	6	—
North Carolina	—	—	—	—	—
Rhode Island	—	—	—	—	—
Washington	—	—	—	—	—
West Virginia	—	—	—	—	—
Wyoming	—	—	—	—	—
Other Jurisdictions					
Virgin Islands	—	—	—	—	—

LEP = Limited English Proficient students

— Indicates there were no students in this category.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: To be excluded, a student was supposed to be classified as SD or as LEP and judged incapable of participating in the assessment.

Numbers are rounded separately by column. Sums of columns may not equal exact percentages due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table A.7 shows, for students with disabilities and for limited English proficient students who took the assessment, the numbers and percentages of students who were assessed with and without accommodations. The table further shows, for those students who were assessed with accommodations, the types of accommodations they received.

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It should be noted that students assessed with accommodations typically received some combination of accommodations. For example, students assessed in small groups (as compared to standard NAEP sessions of about 30 students) usually received extended time and had directions and/or assessment questions read aloud as needed. In one-on-one administrations, students often received assistance in recording answers, had directions and questions read aloud, and were afforded extra time. Extended time was considered the primary accommodation only when it was the only accommodation provided.

Tables A.7a and A.7b present similar information to that in Table A.7. Those tables, however, show accommodations separately for students with disabilities and Limited English Proficient students.

Table A.7

SD and LEP students assessed with and without accommodations, 1998 NAEP writing assessment: National sample, public and nonpublic schools combined

	Grade 4		Grade 8		Grade 12	
	Number of students	Weighted percentage of assessed SD/LEP students	Number of students	Weighted percentage of assessed SD/LEP students	Number of students	Weighted percentage of assessed SD/LEP students
Total number of assessed SD/LEP students	2,171	100	2,058	100	1,317	100
Assessed without accommodations	1,425	61	1,380	69	991	77
Assessed with accommodations	746	39	678	31	326	23
Primary accommodation:						
Large print	3	0	5	0	5	0
Extended time	181	8	211	9	120	8
Read aloud	42	3	24	1	6	1
Bilingual dictionary	5	0	14	0	8	0
Small group	449	24	379	18	152	11
One-on-one	32	2	29	1	14	1
Scribe or computer	27	2	10	1	9	1
Other	7	0	6	0	12	1

SD = Students with Disabilities (the term previously used was IEP)
LEP = Limited English Proficient students

NOTE: Percentages are based on total combined SD and LEP students assessed.

The sum of percentages of students by primary accommodation may not total the overall percentage assessed with accommodations due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table A.7a

SD students assessed with and without accommodations, 1998 NAEP writing assessment: National sample, public and nonpublic schools combined

	Grade 4		Grade 8		Grade 12	
	Number of students	Weighted percentage of assessed SD students	Number of students	Weighted percentage of assessed SD students	Number of students	Weighted percentage of assessed SD students
Total number of assessed SD students	1,386	100	1,467	100	809	100
Assessed without accommodations	744	53	863	64	536	72
Assessed with accommodations	642	47	604	36	273	28
Primary accommodation:						
Large print	3	0	5	0	5	0
Extended time	140	9	173	10	88	8
Read aloud	35	3	18	1	5	1
Bilingual dictionary	0	0	0	0	0	0
Small group	401	29	366	22	141	15
One-on-one	31	3	27	2	14	2
Scribe or computer	27	2	9	1	9	1
Other	5	0	6	0	11	1

SD = Students with Disabilities (the term previously used was IEP).
NOTE: Percentages are based on total SD students assessed.

The sum of percentages of students by primary accommodation may not total the overall percentage assessed with accommodations due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table A.7b

LEP students assessed with and without accommodations, 1998 NAEP writing assessment: National sample, public and nonpublic schools combined

	Grade 4		Grade 8		Grade 12	
	Number of students	Weighted percentage of assessed LEP students	Number of students	Weighted percentage of assessed LEP students	Number of students	Weighted percentage of assessed LEP students
Total number of assessed LEP students	829	100	651	100	532	100
Assessed without accommodations	709	85	561	88	474	91
Assessed with accommodations	120	15	90	12	58	9
Primary accommodation:						
Large print	0	0	0	0	0	0
Extended time	45	5	41	5	32	5
Read aloud	10	2	10	1	1	0
Bilingual dictionary	5	1	14	2	8	1
Small group	56	7	22	3	15	2
One-on-one	2	0	2	0	0	0
Scribe or computer	0	0	1	0	1	0
Other	2	0	0	0	1	0

LEP = Limited English Proficient students

NOTE: Percentages are based on total LEP students assessed.

The sum of percentages of students by primary accommodation may not total the overall percentage assessed with accommodations due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Data Collection

The 1998 writing assessment was conducted from January through March 1998, with some makeup sessions in early April. As with all NAEP assessments, data collection for the 1998 assessment was conducted by trained field staff. For the national assessment, this was accomplished by Westat, Inc., staff. In keeping with the legislative requirements of the state assessment program, personnel from each of the participating states conducted the state writing assessments. NAEP's responsibilities included selecting the sample of schools and students for each participating state, developing the administration procedures and manuals, training the personnel who would conduct the assessment, and conducting an extensive quality assurance program.

Each participating jurisdiction was asked to appoint a state coordinator to be the liaison between NAEP and participating schools. The state coordinator was asked to gain the cooperation of selected schools, assist in scheduling, provide information necessary for sampling, and notify personnel about training. At the local school level, the administrators — usually school or district staff — were responsible for attending training, identifying excluded students, distributing school and teacher questionnaires, notifying sampled students and their teachers, administering the assessment session, completing the necessary paperwork, and preparing the materials for shipment.

Westat staff trained assessment administrators within the states in three-and-one-half hour sessions that included videotaped and practice exercises to provide uniformity in procedures.

To provide quality control across states, a randomly selected 25 percent of the state assessment sessions were overseen by quality control monitors who were trained Westat staff. For nonpublic schools and for states that had not participated in the previous assessment, 50 percent of the sessions were monitored. The identity of the schools to be monitored was not revealed to state, district, or school personnel until shortly before the assessment was to commence. The analysis of the results for the unmonitored schools as compared to the monitored schools yielded no systematic differences that would suggest different procedures were used. See the forthcoming *1998 NAEP Technical Report* for details and results of this analysis.

Scoring

Materials from the NAEP 1998 writing assessment were shipped to National Computer Systems, where trained staff evaluated the responses to the writing prompts using scoring rubrics or guides prepared by Educational Testing Service (ETS). All the writing prompts were evaluated according to six-level scoring guides. At each grade, scoring guides were developed for each of the three types of prompts: narrative, informative, and persuasive. Those guides are presented in Chapter 6.

Specialists in writing who are highly experienced in teaching and/or assessing writing trained the professional raters who evaluated the student responses. The trainers received intensive training together, including reading a manual that explained how to use the scoring guides and the processes for training and checking raters. For each prompt, the trainer, in consultation with other trainers or assessment specialists, chose numerous sample responses to present to raters and prepared notes on how the scoring guide applied to the particular prompt. The sample responses helped raters become accustomed to the variety of responses the prompt elicited before they began rating the student responses. Raters had to pass a qualifying test before they could evaluate student responses: they had to agree with at least 70 percent of the ratings given beforehand by their trainer to a set of ten student responses.

In order to determine interrater reliability of scoring, a specified percentage of responses was read twice: for the 25-minute prompts, 25 percent of responses at grades 4 and 12, and 10 percent of the responses at grade 8 (the only grade at which the state-by-state assessment was given) were read by two raters. In addition, 25 percent of responses to the 50-minute prompts were read by a second rater.

For the national and state writing assessments, approximately 370,000 responses to writing prompts were scored. This number includes rescoring to monitor interrater reliability. The overall within-year percentages of exact agreement of ratings on the six-level scoring guides for the 1998 reliability samples were 77 percent at grade 4, 71 percent at grade 8, and 74 percent at grade 12. Adjacent agreement (no more than one point apart) was 99 percent at grades 4 and 8 and 98 percent at grade 12.

Data Analysis and IRT Scaling

Subsequent to the professional scoring, all information was transcribed to the NAEP database at ETS. Each processing activity was conducted with rigorous quality control. After the assessment information had been compiled in the database, the data were weighted according to the population structure. The weighting for the national and state samples reflected the probability of selection for each student as a result of the sampling design, adjusted for nonresponse. Through post-stratification, the weighting assured that the representation of certain subpopulations corresponded to figures from the U.S. Census and the Current Population Survey.[2]

Analyses were then conducted to determine the percentages of students who wrote responses to each writing prompt at each level on the scoring guide and who provided various responses to each background question. In calculating response percentages for each prompt, only students classified as having been presented the question were included in the denominator of the statistic. Students whose papers were blank or whose responses were judged off topic were similarly excluded from the calculation of the scale.

Item response theory (IRT) was used to estimate average writing scale scores for the nation, for various subgroups of interest within the nation, and for the states and territories. IRT models the probability of answering a question in a certain way as a mathematical function of proficiency. The main purpose of IRT analysis is to provide a common scale on which performance can be compared across groups such as those defined by characteristics including gender and race/ethnicity.

The results for 1998 are presented on the NAEP writing scales. In 1998, a scale ranging from 0 to 300 was created to report performance at each grade level. The scale summarizes student performance across all three purposes for writing (narrative, informative, and persuasive) in the assessment. The 50-minute prompts were not included in the scale, because they were not considered comparable to the 25-minute prompts. In addition, since each student who received a 50-minute prompt received only one prompt, those prompts did not provide sufficient information about those students' writing to be put on the scale.

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[2] These procedures are described more fully in the section "Weighting and Variance Estimation," beginning on page 227 of the report. For additional information about the use of weighting procedures in NAEP, see Johnson, E.G. (1989, December). Considerations and techniques for analysis of NAEP data. *Journal of Education Statistics, 14*(4), 303–334.

In producing the writing scale, an IRT model was used. The writing prompts (all rated according to six-level scoring guides) were scaled by use of a generalized partial-credit (GPC) model.[3] Developed by ETS and first used in 1992, the GPC model permits the scaling of questions scored according to multipoint rating schemes. The model takes full advantage of the information available from each of the student response categories that are used for more complex constructed-response questions such as writing prompts.

Because of the pBIB-spiraling design used by NAEP, students do not receive enough writing prompts to provide reliable information about individual performance. Traditional test scores for individual students, even those based on IRT, would lead to misleading estimates of population characteristics, such as subgroup means and percentages of students at or above a certain scale score level. Consequently, NAEP constructs sets of plausible values designed to represent the distribution of performance in the population. A plausible value for an individual is not a scale score for that individual but may be regarded as a representative value from the distribution of potential scale scores for all students in the population with similar characteristics and identical patterns of item response. Statistics describing performance on the NAEP writing scale are based on the plausible values. Under the assumptions of the scaling models, these population estimates will be consistent, in the sense that the estimates approach the model-based population values as the sample size increases, which would not be the case for population estimates obtained by aggregating optimal estimates of individual performance.[4]

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[3] Muraki, E. (1992). A generalized partial credit model: Application of an EM algorithm. *Applied Psychological Measurement, 16*(2), 159-176.

[4] For theoretical and empirical justification of the procedures employed, see Mislevy, R.J. (1988). Randomization-based inferences about latent variables from complex samples. *Psychometrika, 56*(2), 177-196.

For computational details, see National Assessment of Educational Progress. (1990). *Focusing the new design: NAEP 1988 technical report*, and the *NAEP 1990 technical report*. Princeton, NJ: Educational Testing Service.

Item Mapping Procedures

Item mapping is a procedure by which a rating on a writing prompt (such as "Sufficient" or better) is associated with a certain point on the 0-to-300 writing scale. The item maps for writing are presented at the end of Chapter 6. For example, the "Sufficient" rating for a given writing prompt will map onto the scale at 150 if students with an average scale score of at least 150 have a good chance of earning a rating of "Sufficient" or better. It is not clear-cut how to define "a good chance" in terms of the probability, expressed as a percentage, that a given student will respond to an item at the score level designated. A response-probability convention has to be adopted that will divide those students who have a higher probability of success from those who have a lower probability. Which response-probability convention is adopted largely determines where ratings on writing prompts will map onto the writing scale. A lower-boundary convention maps the ratings on writing prompts to lower points on the scale, and a higher-boundary convention maps the same ratings on prompts to higher points on the scale. The underlying distribution of writing skills in the population does not change, but the choice of a response-probability convention does have an impact on the proportion of the student population that is reported as "able to do" the prompts on the writing scale.

There is no obvious choice of a point along the probability scale that is clearly superior to any other point. On one hand, if the convention were set with a boundary at 50 percent, those above the boundary would be more likely to score at a particular rating (or higher) on the prompt than not, while those below the boundary would be more likely to receive a lower rating. Although this convention has some intuitive appeal, it was rejected on the grounds that having a 50/50 chance of getting a particular rating shows an insufficient degree of mastery. On the other hand, if the convention were set with a boundary at 80 percent, students above the criterion would have a high probability of receiving a given rating or higher. However, many students below this criterion may possess substantial writing ability that would be ignored by such a stringent criterion. In particular, those in the range between 50 and 80 percent likely to receive a particular rating or higher would be more likely to receive that rating than not, yet would not be in the group described as "able to achieve" that level of performance on the prompt.

In a compromise between the 50 percent and the 80 percent conventions, NAEP has adopted a response probability convention of 65 percent for constructed response questions such as writing prompts. This probability convention was established, in part, based on an intuitive judgment that it would provide the best picture of students' writing ability.

Some additional support for this convention was provided by Huynh.[5] He examined the IRT information provided by test items, according to the IRT model used in scaling NAEP questions. ("Information" is used here in a technical sense. See the forthcoming *NAEP 1998 Technical Report* for details.) Following Bock,[6] Huynh decomposed the item information into that provided by a correct response $[P(\theta)*I(\theta)]$ and that provided by an incorrect response $[(1-P(\theta))*I(\theta)]$. Huynh showed that the item information provided by a correct response to a constructed-response item is maximized at the point along the writing scale at which the probability of a correct response is two-thirds. It should be noted, however, that maximizing the item information $I(\theta)$, rather than the information provided by a correct response $[P(\theta)*I(\theta)]$, would imply an item mapping criterion closer to 50 percent.

Weighting and Variance Estimation

A complex sample design was used to select the students who were assessed. The properties of a sample selected through a complex design could be very different from those of a simple random sample, in which every student in the target population has an equal chance of selection and in which the observations from different sampled students can be considered to be statistically independent of one another. Therefore, the properties of the sample for the complex data collection design were taken into account during the analysis of the assessment data.

One way that the properties of the sample design were addressed was by using sampling weights to account for the fact that the probabilities of selection were not identical for all students. All population and subpopulation characteristics based on the assessment data used sampling weights in their estimation. These weights included adjustments for school and student nonresponse.

Not only must appropriate estimates of population characteristics be derived, but appropriate measures of the degree of uncertainty must be obtained for those statistics. Two components of uncertainty are accounted for in the variability of statistics based on student ability: (1) the uncertainty due to sampling only a relatively small number of students, and (2) the uncertainty due to sampling only a relatively small number of cognitive questions (in this case, writing prompts). The first component accounts for the variability associated with the estimated percentages of students who had certain background characteristics or who had a certain rating for their responses to a prompt.

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[5] Huynh, H. (1998). On score locations of binary and partial credit items and their application to item mapping and criterion referenced interpretation. *Journal of Educational and Behavioral Statistics, 23*(1), 35–56.

[6] Bock, R.D. (1972). Estimating item parameters and latent ability when responses are scored in two or more latent categories. *Psychometrika, 37*, 29–51.

Because NAEP uses complex sampling procedures, conventional formulas for estimating sampling variability that assume simple random sampling are inappropriate. NAEP uses a jackknife replication procedure to estimate standard errors. The jackknife standard error provides a reasonable measure of uncertainty for any student information that can be observed without error. However, because each student typically responds to only two writing prompts, the scale score for any single student would be imprecise. In this case, plausible values methodology can be used to describe the performance of groups and subgroups of students, but the underlying imprecision involved in this step adds another component of variability to statistics based on NAEP scale scores.[7] (Appendix B provides the standard errors for the results presented in this report.)

Typically, when the standard error is based on a small number of students or when the group of students is enrolled in a small number of schools, the amount of uncertainty associated with the standard errors may be quite large. Throughout this report, estimates of standard errors subject to a large degree of uncertainty are followed by the "!" symbol. In such cases, the standard errors — and any confidence intervals or significance tests involving these standard errors -- should be interpreted cautiously. Additional details concerning procedures for identifying such standard errors are discussed in the forthcoming *NAEP 1998 Technical Report*.

The reader is reminded that, like findings from all surveys, NAEP results are subject to other kinds of error, including the effects of imperfect adjustment for student and school nonresponse and unknowable effects associated with the particular instrumentation and data collection methods. Nonsampling errors can be attributed to a number of sources — inability to obtain complete information about all selected schools in the sample (some students or schools refused to participate, or students participated but answered only certain questions); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording, coding, or scoring data; and other errors in collecting, processing, sampling, and estimating missing data. The extent of nonsampling error is difficult to estimate and, because of their nature, the impact of such errors cannot be reflected in the data-based estimates of uncertainty provided in NAEP reports.

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[7] For further details, see Johnson, E.G., & Rust, K.F. (1992). Population inferences and variance estimation for NAEP data. *Journal of Educational Statistics, 17*(2), 175-190.

Drawing Inferences from the Results

Because the percentages of students in these subpopulations and their average scale scores are based on samples rather than on the entire population of fourth, eighth, or twelfth graders in the nation or a jurisdiction, the numbers reported are estimates. As such, they are subject to a measure of uncertainty, reflected in the standard error of the estimate. When the percentages or average scale scores of certain groups are compared, the standard error should be taken into account, and observed similarities or differences should not be relied on solely. Therefore, the comparisons discussed in this report are based on statistical tests that consider the standard errors of those statistics and the magnitude of the difference among the averages or percentages.

Using confidence intervals based on the standard errors provides a way to take into account the uncertainty associated with sample estimates and to make inferences about the population averages and percentages in a manner that reflects that uncertainty. An estimated sample average scale score plus or minus two standard errors approximates a 95 percent confidence interval for the corresponding population quantity. This statement means that one can conclude with approximately a 95 percent level of confidence that the average performance of the entire population of interest (e.g., all eighth-grade students in public schools in a jurisdiction) is within plus or minus two standard errors of the sample average.

As an example, suppose that the average writing scale score of the students in a particular group was 162, with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

$$\text{Average} \pm 2 \text{ standard errors}$$

$$162 \pm 2 \times 1.2$$

$$162 \pm 2.4$$

$$(159.6,\ 164.4)$$

Thus, one can conclude with a 95 percent level of confidence that the average scale score for the entire population of students in that group is between 159.6 and 164.4.

Similar confidence intervals can be constructed for percentages, if the percentages are not extremely large or extremely small. Extreme percentages should be interpreted with caution. Adding or subtracting the standard errors associated with extreme percentages could cause the confidence interval to exceed 100 percent or go below 0 percent, resulting in numbers that are not meaningful. (The forthcoming *NAEP 1998 Technical Report* contains a more complete discussion of extreme percentages.)

Analyzing Group Differences in Averages and Percentages

The statistical tests determine whether the evidence, based on the data from the groups in the sample, is strong enough to conclude that the averages or percentages are actually different for those groups in the population. If the evidence is strong (i.e., the difference is statistically significant), the report describes the group averages or percentages as being different (e.g., one group performed higher than or lower than another group), regardless of whether the sample averages or percentages appear to be approximately the same.

The reader is cautioned to rely on the results of the statistical tests rather than on the apparent magnitude of the difference between sample averages or percentages when determining whether the sample differences are likely to represent actual differences among the groups in the population.

To determine whether a real difference exists between the average scale scores (or percentages of a certain attribute) for two groups in the population, one needs to obtain an estimate of the degree of uncertainty associated with the difference between the averages (or percentages) of these groups for the sample. This estimate of the degree of uncertainty, called the standard error of the difference between the groups, is obtained by taking the square of each group's standard error, summing the squared standard errors, and taking the square root of that sum.

$$\text{Standard Error of the Difference} = SE_{A-B} = \sqrt{(SE_A^2 + SE_B^2)}$$

Similar confidence intervals can be constructed for percentages, provided that the percentages are not extremely large or extremely small. For percentages, significance tests work best when sample sizes are large, and the percentages being tested have magnitude relatively close to 50 percent. Statements about group differences should be interpreted with caution if at least one of the groups being compared is small in size and/or if "extreme" percentages are being compared. Percentages, P, were treated as "extreme" if:

$P < P_{lim} = \dfrac{200}{N_{EFF}+2}$, where the effective sample size is $N_{EFF} = \dfrac{P(100 - P)}{(SE_p)^2}$, and SE_p is the jackknife standard error of P.

This "rule of thumb" cutoff leads to flagging a large proportion of statistical tests that would otherwise be significant. Similarly, at the other end of the 0 – 100 scale, a percentage is deemed extreme if $100 - P < P_{lim}$. When a percentage is flagged as extreme, the percentage is reported but no standard error is estimated and no significance test is conducted.

In this case, the value of *P* was reported, but no standard error was estimated and hence no tests were conducted.

As an example of comparing groups, consider the problem of determining whether the average writing scale score of Group A is higher that that of Group B. Suppose that the sample estimates of the average scale scores and standard errors were as follows:

Group	Average scale score	Standard error
A	137	0.9
B	135	1.1

The difference between the estimates of the average scale scores of Groups A and B is two points (137 − 135). The standard error of this difference is

$$\sqrt{(0.9^2 + 1.1^2)} = 1.4.$$

Thus, an approximate 95 percent confidence interval for this difference is

plus or minus two standard errors of the difference

$$2 \pm 2 \times 1.4$$

$$2 \pm 2.8$$

$$(-0.8, 4.8).$$

The value zero is within the confidence interval; therefore, there is insufficient evidence to claim that Group A outperformed Group B.

In some cases, the differences between groups were not discussed in this report. This happened for one of two reasons: (a) if the comparison involved an extreme percentage (as defined above); or (b) if the standard error for either group was subject to a large degree of uncertainty (i.e., the coefficient of variation is greater than 20 percent, denoted by "!" in the tables).[8] In either case, the results of any statistical test involving that group needs to be interpreted with caution, and so the results of such tests are not discussed in this report.

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[8] As was discussed in the section "Weighting and Variance Estimation," estimates of standard errors subject to a large degree of uncertainty are designated by the symbol "!". In such cases, the standard error — and any confidence intervals or significance tests among these standard errors — should be interpreted with caution.

Estimating Degrees of Freedom for Significance Tests

Among the major findings reported for NAEP assessments are mean differences between groups — for example, comparisons of public and private school students. Such comparisons are assessed for statistical significance by a t-test of the form:

$$\frac{\left|m_i - m_j\right|}{\sqrt{S^2_{m_i} + S^2_{m_j}}}$$

Where:

m_i and m_j are the means for groups i and j, and $S^2_{m_i}$ and $S^2_{m_j}$ are the jackknife estimates of sampling variance for groups i and j. For a two tailed test, this statistic is assessed at a nominal alpha level of .05/2c, where c>1 for multiple comparisons.

The degrees of freedom of this t-test are estimated by an approximation given by Johnson and Rust[9] as follows:

$$df = \frac{\left(\sum_{k=1}^{N} S^2_{m_k}\right)^2}{\sum_{k=1}^{N}\left(\frac{S^4_{m_k}}{df_k}\right)}$$

where the summation is over the two groups being compared. The item, df_k, is the degree of freedom estimate for the variance of the mean m_k and is defined by Satterthwaite[10] with a correction term suggested by Johnson and Rust. It is derived by matching estimates of the first two moments of the variance to those of a chi-square random variable.

$$df_k = \left(3.16 - \frac{2.77}{\sqrt{L}}\right)\frac{\left(\sum_{j=1}^{L}\left(m_{jk} - m_k\right)^2\right)^2}{\sum_{j=1}^{L}\left(m_{jk} - m_k\right)^4}$$

Here, j stands for jackknife replicate j, and the summations are overall replicates, usually 62 in NAEP. The m_{jk} term is the mean of subgroup k for the jth jackknife replicate. The term m_k is the overall mean for subgroup k, using the overall weights and the first plausible value.

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[9] Johnson, E. & Rust, K. (1992) "Effective Degrees of Freedom for Variance Estimates from a Complex Sample Survey," Proceedings of the Section on Survey Research Methods, American Statistical Association, 863-866.

[10] Satterthwaite, F.E. (1941) "Synthesis of Variance," *Psychometrika 16*, 5, 309-316.

The number of degrees of freedom for the variance equals the number of independent pieces of information used to generate the variance. In the case of data from NAEP, the pieces of information are the 62 squared differences $(m_{jk} - m_k)^2$, each supplying, at most, one degree of freedom (regardless of how many individuals were sampled within PSUs). If some of the squared differences $(m_{jk} - m_k)^2$ are much larger than others, the variance estimate of m_k is predominantly estimating the sum of these larger components, which dominate the remaining terms. The effective degrees of freedom of S^2_{mk} in this case will be nearer to the number of dominant terms. The estimate, df_k, reflects these relationships.

The two formulae above show that when df_k is small, the degrees of freedom for the t-test, df, will also be small. This will tend to be the case when only a few PSU pairs have information about subgroup differences relevant to a t-test. It will also be the case when a few PSU pairs have subgroup differences much larger than other PSU pairs.

Conducting Multiple Tests

The procedures described in this section and the certainty ascribed to intervals (e.g., a 95 percent confidence interval) are based on statistical theory that assumes that only one confidence interval or test of statistical significance is being performed. However, in Chapter 2 and Chapter 3 of this report, many different groups are being compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that the certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. To hold the significance level for the set of comparisons at a particular level (e.g., .05), adjustments (called "multiple comparison procedures"[11]) must be made to the methods described in the previous section. One such procedure, the False Discovery Rate (FDR) procedure,[12] was used to control the certainty level.

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[11] Miller, R.G. (1966). *Simultaneous statistical inference.* New York: Wiley.

[12] Benjamini, Y., & Hochberg, Y. (1995). Controlling the false discovery rate: A practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society, Series B, No. 1*, pp. 298–300.

Unlike the other multiple comparison procedures (e.g., the Bonferroni procedure) that control the familywise error rate (i.e., the probability of making even one false rejection in the set of comparisons), the FDR procedure controls the expected proportion of falsely rejected hypotheses. Furthermore, familywise procedures are considered conservative for large families of comparisons.[13] Therefore, the FDR procedure is more suitable for multiple comparisons in NAEP than other procedures. A detailed description of the FDR procedure appears in the forthcoming *NAEP 1998 Technical Report*.

The 1998 assessment is the first time NAEP has used the Benjamini-Hochberg procedure to maintain FDR for *all* multiple comparisons. Prior to the 1996 assessment, the Bonferroni procedure was used for multiple comparisons.

NAEP Reporting Groups

In this report, results are provided for groups of students defined by shared characteristics — region of the country, gender, race or ethnicity, parental education, school's type of location, eligibility for the Free/Reduced-Price School Lunch program, and type of school. Based on participation rate criteria, results are reported for subpopulations only when sufficient numbers of students and adequate school representation are present. For public school students, the minimum requirement is at least 62 students in a particular subgroup from at least 5 primary sampling units (PSUs).[13] For nonpublic school students, the minimum requirement is 62 students from at least 6 different schools for the state assessment program or from at least 5 PSUs for the national assessment. However, the data for all students, regardless of whether their subgroup was reported separately, were included in computing overall results. Definitions of the subpopulations referred to in this report are presented below.

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[13] Williams, V.S.L., Jones, L.V., & Tukey, J.W. (1994, December). *Controlling error in multiple comparisons with special attention to the National Assessment of Educational Progress.* Research Triangle Park, NC: National Institute of Statistical Sciences.

Region

Results are reported for four regions of the nation: Northeast, Southeast, Central, and West. Figure A.1 shows how states are divided among these regions. All 50 states and the District of Columbia are listed. Territories and the two Department of Defense Educational Activities jurisdictions are not assigned to any region.

Regional results are based on national assessment samples, not on aggregated state assessment program samples. Thus, the regional results are based on a sample that is different and separate from that used to report the state results.

Figure A.1

States included in the four NAEP regions

Northeast	Southeast	Central	West
Connecticut	Alabama	Illinois	Alaska
Delaware	Arkansas	Indiana	Arizona
District of Columbia	Florida	Iowa	California
Maine	Georgia	Kansas	Colorado
Maryland	Kentucky	Michigan	Hawaii
Massachusetts	Louisiana	Minnesota	Idaho
New Hampshire	Mississippi	Missouri	Montana
New Jersey	North Carolina	Nebraska	Nevada
New York	South Carolina	North Dakota	New Mexico
Pennsylvania	Tennessee	Ohio	Oklahoma
Rhode Island	*Virginia	South Dakota	Oregon
Vermont	West Virginia	Wisconsin	Texas
*Virginia			Utah
			Washington
			Wyoming

* The part of Virginia that is included in the Washington, DC metropolitan area is included in the Northeast region; the remainder of the state is included in the Southeast region.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Gender

Results are reported separately for males and females.

Race/Ethnicity

The race/ethnicity variable is derived from two questions asked of students and from school records, and it is used for race/ethnicity subgroup comparisons. Two questions from the set of general student background questions were used to determine race/ethnicity:

If you are Hispanic, what is your Hispanic background?

- ☐ I am not Hispanic.
- ☐ Mexican, Mexican American, or Chicano
- ☐ Puerto Rican
- ☐ Cuban
- ☐ Other Spanish or Hispanic background

Students who responded to this question by filling in the second, third, fourth, or fifth oval were considered Hispanic. For students who filled in the first oval, did not respond to the question, or provided information that was illegible or could not be classified, responses to the following question were examined to determine their race/ethnicity.

Which best describes you?

- ☐ White (not Hispanic)
- ☐ Black (not Hispanic)
- ☐ Hispanic ("Hispanic" means someone who is Mexican, Mexican American, Chicano, Puerto Rican, Cuban, or from some other Spanish or Hispanic background.)
- ☐ Asian or Pacific Islander ("Asian or Pacific Islander" means someone who is Chinese, Japanese, Korean, Filipino, Vietnamese, Asian American, or from some other Asian or Pacific Island background.)
- ☐ American Indian or Alaskan Native ("American Indian or Alaskan Native" means someone who is from one of the American Indian tribes, or one of the original people of Alaska.)
- ☐ Other (specify) ______________________

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Students' race/ethnicity was then assigned on the basis of their responses. For students who filled in the sixth oval ("Other"), provided illegible information or information that could not be classified, or did not respond at all, race/ethnicity was assigned as determined by school records.

An exception in this definition of race/ethnicity was made for Hawaii (i.e., students in Hawaii in the state assessment). Students from Hawaii who specified Asian or Pacific Islander in response to the question "Which best describes you?" were categorized in the Asian or Pacific Islander race/ethnicity classification, no matter what response they gave to the question, "If you are Hispanic, what is your Hispanic background?"

Race/ethnicity could not be determined for students who did not respond to either of the demographic questions and whose schools did not provide information about race/ethnicity.

Details of how race/ethnicity classifications were derived are presented so that readers can determine how useful the results are for their particular purposes. Also, some students indicated that they were from a Hispanic background (e.g., Puerto Rican or Cuban) and that a racial/ethnic category other than Hispanic best described them. These students were classified as Hispanic based on the rules described above. Furthermore, information from the schools did not always correspond to how students described themselves. Therefore, the racial/ethnic results presented in this report attempt to provide a clear picture based on several sources of information.

In the NAEP 1998 writing assessment, the mutually exclusive racial/ethnic categories were: White, Black, Hispanic, Asian/Pacific Islander, and American Indian (including Alaskan Native).

Parents' Highest Level of Education

For students at all three grades, the variable representing the level of parental education is derived from responses to six questions from the set of general student background questions. Students were asked to indicate the extent of their mother's education with the following three questions.

Did your mother graduate from high school? ("Mother" can be a mother, stepmother, or female guardian.)

☐ Yes

☐ No

☐ I don't know.

Did your mother have some education after high school? ("Mother" can be a mother, stepmother, or female guardian.)

☐ Yes

☐ No

☐ I don't know.

Did your mother graduate from college? ("Mother" can be a mother, stepmother, or female guardian.)

☐ Yes

☐ No

☐ I don't know.

Students were asked the same three questions about their father's education level, as shown below.

Did your father graduate from high school? ("Father" can be a father, stepfather, or male guardian.)

☐ Yes

☐ No

☐ I don't know.

Did your father have some education after high school? ("Father" can be a father, stepfather, or male guardian.)

- ☐ Yes
- ☐ No
- ☐ I don't know.

Did your father graduate from college? ("Father" can be a father, stepfather, or male guardian.)

- ☐ Yes
- ☐ No
- ☐ I don't know.

The information was combined into one parental education reporting variable determined through the following process. If a student indicated the extent of education for only one parent, that level was included in the data. If a student indicated the extent of education for both parents, the higher of the two levels was included in the data. If a student did not know the level of education for both parents, or did not know the level for one parent and did not respond for the other, the parental education level was classified as "I don't know." If the student did not respond for either parent, the student was recorded as having provided no response. Nationally, 11 percent of fourth graders, 3 percent of eighth graders, and 1 percent of twelfth graders reported that they did not know the education level of either of their parents. Because these parental education questions were revised for 1998, the relation between self-reported levels of parental education and performance on the NAEP 1998 writing assessment may differ from that seen in past NAEP assessments in writing and other subjects.

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Type of Location

Results are reported for students attending schools in three mutually exclusive location types: central city, urban fringe/large town, and rural/small town.

Central City: This category includes central cities of all Standard Metropolitan Statistical Areas (SMSA) as defined by the Office of Management and Budget. Central City is a geographical term and is not synonymous with "inner city."

Urban Fringe/Large Town: The urban fringe category includes all densely settled places and areas within SMSA's that are classified as urban by the Bureau of the Census, but which do not qualify as Central City. A Large Town is defined as a place outside a SMSA with a population greater than or equal to 25,000.

Rural/Small Town: Rural includes all places and areas with populations of less than 2,500 that are classified as rural by the Bureau of the Census. A Small Town is defined as a place outside a SMSA with a population of less than 25,000, but greater than or equal to 2,500.

Eligibility for the Free/Reduced-Price School Lunch Program

Based on available school records, students were classified as either currently eligible for the Free/Reduced-Price School Lunch component of the Department of Agriculture's National School Lunch Program or not eligible. Students whose family income is at or below 130 percent of the poverty level are eligible for free lunches. Students whose family income is up to 185 percent of the poverty level are eligible for reduced-price lunches. The classification applies only to the school year when the assessment was administered (i.e., the 1997-98 school year) and is not based on eligibility in previous years. If school records were not available, the student was classified as "Information not available." If the school did not participate in the program, all students in that school were classified as "Information not available."

Type of School

Results are reported by the type of school that the student attends — public or nonpublic. Nonpublic schools include Catholic and other private schools. Although Bureau of Indian Affairs (BIA) schools and Department of Defense Domestic Dependent Elementary and Secondary Schools (DDESS) are not included in either the public or nonpublic categories, they are included in the overall national results. (A separate sample for DDESS was included as a jurisdiction in the state assessment.)

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Cautions in Interpretations

As described earlier, the NAEP writing scale makes it possible to examine relationships between students' performance and various background factors measured by NAEP. However, the fact that a relation exists between achievement and a particular background factor does not mean that the factor caused the higher or lower achievement. Many other factors may be influencing the achievement. Similarly, the assessments do not capture the influence of unmeasured variables. The results are most useful when they are considered in combination with other knowledge about the student population and the educational system, such as trends in instruction, changes in the school-age population, and societal demands and expectations.

Grade 12 Participation Rates and Motivation

NAEP has been described as a "low-stakes" assessment. That is, students receive no individual scores, and their NAEP performance has no effect on their grades, promotions, or graduation. There has been continued concern that this lack of consequences affects participation rates of students and schools, as well as the motivation of students to perform well on NAEP. Of particular concern has been the performance of twelfth graders, who typically have lower student participation rates than fourth and eighth graders and who are more likely to omit responses compared to the younger cohorts.

Participation Rates

In NAEP, there has been a consistent pattern of lower participation rates for older students. Here we are making a comparison to participation rates in NAEP in 1992 (the last time the NAEP writing assessment was administered), when students were classified by both grade and age level. In the 1992 NAEP assessments, for example, the student participation rates were 93 percent and 89 percent at grades 4 (age 9) and 8 (age 13), respectively. At the twelfth grade (age 17), however, the participation rate was 81 percent. School participation rates (the percentage of sampled schools that participated in the assessment) have also typically decreased with increasing grade level. Again citing the 1992 assessments, the school participation rate was 86 percent for the fourth grade (age 9), 85 percent for the eighth grade (age 13), and 82 percent for the twelfth grade (age 17).

The effect of participation rates on student performance, however, is unclear. Students may choose not to participate in NAEP for many reasons, such as a desire to attend regular classes so as not to miss important instruction or fear of not doing well on NAEP. Similarly, there are a variety of reasons for which various schools do not participate. The sampling weights and nonresponse adjustments, described earlier in this appendix, provide an approximate statistical adjustment for nonparticipation. However, the effect of some school and student nonparticipation may have some undetermined effect on results.

Motivation

To the extent that students in the NAEP sample are not trying their hardest, NAEP results may underestimate student performance. The concern increases as students get older and is particularly pronounced for twelfth graders. The students themselves furnish some evidence about their motivation. As part of the background questions, students were asked how important it was to do well on the NAEP writing assessment. They were asked to indicate whether it was very important, important, somewhat important, or not very important to them. The percentage of students indicating they thought it was either important or very important to do well was 90 percent for fourth graders, 61 percent for eighth graders, and 37 percent for twelfth graders.

Several factors may contribute to this pattern. NAEP was administered in the late winter, when high school seniors often have other things on their minds. Another factor that may have contributed to lack of motivation is the fact that the writing assessment consists of constructed-response questions (in this case, writing prompts), which tend to be more time-consuming than multiple-choice questions. As with participation rates, however, the combined effect of these and other factors is unknown.

It is also interesting to note that students who indicated it was very important for them to do well on NAEP did not have the highest average scores. In fact, at grade 12, students who reported it was not very important to do well had higher average scores than those who reported it was very important to do well. These data further cloud the relationship between motivation and performance on NAEP.

Need for Future Research

More research is needed to delineate the factors that contribute to nonparticipation and lack of motivation. To that end, NCES plans to commission a study of high school transcripts to learn more about the academic performance of twelfth-grade students who do not participate in the assessment. In addition, NCES is currently investigating how various types of incentives can be effectively used to increase participation in NAEP.

APPENDIX B

Standard Errors

The comparisons presented in this report are based on statistical tests that consider the magnitude of the difference between group averages or percentages and the standard errors of those statistics. This appendix contains the standard errors for the estimated averages and percentages in all the tables and figures throughout this report. Because NAEP scores and percentages are based on samples rather than the entire population(s), the results are subject to a measure of uncertainty reflected in the standard errors of the estimates. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Table B1.1

Standard errors for writing scale score percentiles for the nation: 1998

	Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Grade 4	0.7	0.6	0.6	0.7	0.8	0.8
Grade 8	0.6	0.8	0.7	0.8	0.8	0.9
Grade 12	0.7	0.9	0.7	0.8	0.8	0.9

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.2

THE NATION'S REPORT CARD naep

Standard errors for percentage of students at or above the writing achievement levels for the nation: 1998

Nation			
Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4			
0.4	0.4	0.8	0.2
Grade 8			
0.5	0.5	0.7	0.1
Grade 12			
0.7	0.7	0.7	0.1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B1.4

THE NATION'S REPORT CARD naep

Standard errors for percentage of students within each writing achievement level range for the nation: 1998

Nation			
Below Basic	At Basic	At Proficient	At Advanced
Grade 4			
0.4	0.6	0.7	0.2
Grade 8			
0.5	0.5	0.7	0.1
Grade 12			
0.7	0.7	0.7	0.1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table B1.3

Grade 4: *Favorite Object*

Overall Percentage "Uneven" (3) or better	Standard errors for percentage "Uneven" (score of 3) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
0.7	1.0	***	***

* NAEP writing scale range

*** Standard error estimate cannot be accurately determined.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.4

Grade 4: *Castle*

Overall Percentage "Sufficient" (4) or better	Standard errors for percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
1.2	2.0	1.4	***

* NAEP writing scale range

*** Standard error estimate cannot be accurately determined.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.5

Grade 4: *Invisible Friend*

Overall Percentage "Skillful" (5) or better	Standard errors for percentage "Skillful" (score of 5) or better within achievement level ranges		
	Basic 115–175*	*Proficient* 176–224*	*Advanced* 225 and above*
1.3	1.1	3.7	***

* NAEP Writing scale range

*** Standard error estimate cannot be accurately determined.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.6

Grade 8: *Space Visitor*

Overall Percentage "Uneven" (3) or better	Standard errors for percentage "Uneven" (score of 3) or better within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
0.9	1.4		

* NAEP Writing scale range

--- Standard error estimate cannot be accurately determined

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Table B1.7

Grade 8: *Designing a TV Show*

Overall Percentage "Sufficient" (4) or better	Standard errors for percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
1.9	2.2	3.4	---

* NAEP writing scale range

--- Standard error estimate cannot be accurately determined

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Table B1.8

Grade 8: *Lengthening the School Year*

Overall Percentage "Excellent" (6)	Standard errors for percentage "Excellent" (score of 6) within achievement level ranges		
	Basic 114–172*	*Proficient* 173–223*	*Advanced* 224 and above*
0.5	---	1.7	---

* NAEP Writing scale range

--- Standard error estimate cannot be accurately determined

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment

Table B1.9 Grade 12: *Writing Mentor*

Overall Percentage "Sufficient" (4) or better	Standard errors for percentage "Sufficient" (score of 4) or better within achievement level ranges		
	Basic 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
1.4	1.9	---	---

* NAEP Writing scale range.
--- Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.10 Grade 12: *Special Object*

Overall Percentage "Skillful" (5) or better	Standard errors for percentage "Skillful" (score of 5) or better within achievement level ranges		
	Basic 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
1.4	2.0	2.6	---

* NAEP Writing scale range.
--- Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B1.11 Grade 12: *One Vote*

Overall Percentage "Excellent" (6)	Standard errors for percentage "Excellent" (score of 6) within achievement level ranges		
	Basic 122–177*	*Proficient* 178–229*	*Advanced* 230 and above*
0.4	---	2.2	---

* NAEP writing scale range.
--- Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.1

Standard errors for average writing scale scores by gender: 1998

	Percentage of students	Average scale score
Grade 4		
Male	0.5	0.8
Female	0.5	0.7
Grade 8		
Male	0.4	0.8
Female	0.4	0.6
Grade 12		
Male	0.5	0.7
Female	0.5	0.7

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.2

Standard errors for average writing scale scores by race/ethnicity: 1998

	Percentage of students	Average scale score
Grade 4		
White	0.2	0.8
Black	0.1	0.9
Hispanic	0.2	1.2
Asian/Pacific Islander	0.1	2.2
American Indian	0.1	1.8
Grade 8		
White	0.1	0.7
Black	0.1	1.0
Hispanic	0.1	1.3
Asian/Pacific Islander	0.2	3.5
American Indian	0.2	3.0
Grade 12		
White	0.3	0.7
Black	0.2	1.3
Hispanic	0.2	1.2
Asian/Pacific Islander	0.1	3.1
American Indian	0.2	3.7

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.3

Standard errors for average writing scale scores by parents' highest level of education: 1998

	Percentage of students	Average scale score
	Grade 4	
Graduated from college	0.7	0.7
Some education after high school	0.4	1.0
Graduated from high school	0.3	1.0
Did not finish high school	0.3	3.6
I don't know.	0.4	0.9
	Grade 8	
Graduated from college	0.8	0.8
Some education after high school	0.5	0.8
Graduated from high school	0.4	0.8
Did not finish high school	0.4	2.1
I don't know.	0.1	1.7
	Grade 12	
Graduated from college	0.9	0.7
Some education after high school	0.6	0.8
Graduated from high school	0.3	0.9
Did not finish high school	0.3	1.6
I don't know	0.1	3.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.4

Standard errors for average writing scale scores by region: 1998

	Percentage of students	Average scale score
	Grade 4	
Northeast	0.6	1.3
Southeast	0.9	1.2
Central	0.2	1.1
West	0.9	1.6
	Grade 8	
Northeast	0.7	1.6
Southeast	1.0	1.4
Central	0.3	1.4
West	1.1	1.2
	Grade 12	
Northeast	1.0	1.7
Southeast	1.0	1.3
Central	0.4	1.4
West	1.0	1.0

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.5

Standard errors for average writing scale scores by type of location: 1998

	Percentage of students	Average scale score
Grade 4		
Central city	1.2	1.1
Urban fringe/large town	1.8	1.1
Rural/small town	1.5	1.3
Grade 8		
Central city	1.4	1.3
Urban fringe/large town	1.9	1.4
Rural/small town	1.4	1.1
Grade 12		
Central city	1.6	1.4
Urban fringe/large town	1.8	1.3
Rural/small town	1.4	0.9

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.6

Standard errors for average writing scale scores by Free/Reduced-Price School Lunch Program eligibility: 1998

	Percentage of students	Average scale score
Grade 4		
Eligible	1.1	0.9
Not eligible	1.4	0.8
Information not available	1.6	1.6
Grade 8		
Eligible	0.9	0.7
Not eligible	1.6	0.8
Information not available	1.9	1.7
Grade 12		
Eligible	0.7	0.9
Not eligible	1.9	0.9
Information not available	2.1	1.6

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B2.7

Standard errors for average writing scale scores by type of school: 1998

	Percentage of students	Average scale score
	Grade 4	
Public	0.7	0.8
Nonpublic	0.7	1.2
Nonpublic: Catholic	0.6	1.3
Other nonpublic	0.5	2.4
	Grade 8	
Public	1.1	0.6
Nonpublic	1.1	1.2
Nonpublic: Catholic	0.9	1.2
Other nonpublic	0.6	2.3
	Grade 12	
Public	1.0	0.7
Nonpublic	1.0	1.4
Nonpublic: Catholic	0.9	1.9
Other nonpublic	0.4	3.0

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table B3.1

Standard errors for percentage of students at or above achievement levels in writing by gender: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Male	0.6	0.6	0.8	0.2
Female	0.5	0.5	0.9	0.3
Grade 8				
Male	0.8	0.8	0.8	0.1
Female	0.3	0.3	0.9	0.2
Grade 12				
Male	0.9	0.9	0.7	0.1
Female	0.6	0.6	0.9	0.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.1

Standard errors for percentage of students within each achievement level range in writing by gender: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Male	0.6	0.7	0.8	0.2
Female	0.5	0.8	0.9	0.3
Grade 8				
Male	0.8	0.7	0.8	0.1
Female	0.3	0.8	0.8	0.2
Grade 12				
Male	0.9	1.0	0.7	0.1
Female	0.6	0.7	0.8	0.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B3.2

Standard errors for percentage of students at or above achievement levels in writing by race/ethnicity: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
White	0.4	0.4	1.0	0.2
Black	1.1	1.1	0.9	0.1
Hispanic	1.5	1.5	1.0	0.1
Asian/Pacific Islander	1.5	1.5	2.8	1.6
American Indian	2.3	2.3	1.6	0.4
Grade 8				
White	0.5	0.5	1.0	0.1
Black	1.4	1.4	0.7	---
Hispanic	1.3	1.3	0.9	0.1
Asian/Pacific Islander	2.3	2.3	3.8	1.1
American Indian	4.5	4.5	2.6	---
Grade 12				
White	0.8	0.8	1.0	0.2
Black	1.7	1.7	1.0	---
Hispanic	1.5	1.5	1.0	0.1
Asian/Pacific Islander	2.9	2.9	3.6	0.6
American Indian	3.9	3.9	4.4	---

--- Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.2

Standard errors for percentage of students within each achievement level range in writing by race/ethnicity: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
White	0.4	0.8	1.0	0.2
Black	1.1	1.3	0.9	0.1
Hispanic	1.5	1.2	1.0	0.1
Asian/Pacific Islander	1.5	2.2	3.3	1.6
American Indian	2.3	2.5	1.7	0.4
Grade 8				
White	0.5	0.8	0.9	0.1
Black	1.4	1.3	0.7	---
Hispanic	1.3	1.0	0.9	0.1
Asian/Pacific Islander	2.3	2.3	3.2	1.1
American Indian	4.5	4.8	2.6	---
Grade 12				
White	0.8	0.9	0.9	0.2
Black	1.7	1.3	1.0	---
Hispanic	1.5	1.7	1.0	0.1
Asian/Pacific Islander	2.9	2.4	3.3	0.6
American Indian	3.9	4.3	4.3	---

--- Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table B3.3

Standard errors for percentage of students at or above achievement levels in writing by parents' highest level of education: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Graduated from college	0.5	0.5	0.9	0.2
Some education after high school	1.0	1.0	1.2	0.3
Graduated from high school	1.0	1.0	1.5	0.3
Did not finish high school	3.5	3.5	3.1	…
I don't know	1.1	1.1	1.1	0.1
Grade 8				
Graduated from college	0.5	0.5	1.2	0.2
Some education after high school	0.8	0.8	0.9	0.1
Graduated from high school	1.2	1.2	1.1	0.2
Did not finish high school	2.2	2.2	2.6	…
I don't know	2.8	2.8	1.1	…
Grade 12				
Graduated from college	0.7	0.7	0.9	0.2
Some education after high school	1.1	1.1	0.8	0.1
Graduated from high school	1.2	1.2	1.1	…
Did not finish high school	2.3	2.3	0.9	…
I don't know	6.2	6.2	1.4	…

… Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.3

Standard errors for percentage of students within each achievement level range in writing by parents' highest level of education: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Graduated from college	0.5	0.7	0.8	0.2
Some education after high school	1.0	1.3	1.2	0.3
Graduated from high school	1.0	1.8	1.3	0.3
Did not finish high school	3.5	2.5	3.2	…
I don't know	1.1	1.5	1.1	0.1
Grade 8				
Graduated from college	0.5	0.9	1.1	0.2
Some education after high school	0.8	0.9	0.8	0.1
Graduated from high school	1.2	1.4	1.1	0.2
Did not finish high school	2.2	2.8	2.7	…
I don't know	2.8	3.0	1.1	…
Grade 12				
Graduated from college	0.7	0.9	0.9	0.2
Some education after high school	1.1	1.2	0.8	0.1
Graduated from high school	1.2	1.5	1.0	…
Did not finish high school	2.3	2.4	0.8	…
I don't know	6.2	6.0	1.4	…

… Standard error estimate cannot be accurately determined.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B3.4

Standard errors for percentage of students at or above achievement levels in writing by region: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Northeast	0.8	0.8	1.6	0.4
Southeast	0.9	0.9	1.2	0.2
Central	0.7	0.7	1.6	0.4
West	1.2	1.2	1.6	0.3
Grade 8				
Northeast	1.0	1.0	2.0	0.3
Southeast	1.0	1.0	2.0	0.2
Central	1.2	1.2	1.4	0.2
West	1.1	1.1	1.2	0.2
Grade 12				
Northeast	1.8	1.8	1.6	0.2
Southeast	1.1	1.1	1.1	0.2
Central	1.5	1.5	1.5	0.2
West	0.9	0.9	1.2	0.3

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.4

Standard errors for percentage of students within each achievement level range in writing by region: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Northeast	0.8	1.3	1.4	0.4
Southeast	0.9	0.9	1.2	0.2
Central	0.7	1.6	1.6	0.4
West	1.2	1.0	1.4	0.3
Grade 8				
Northeast	1.0	1.5	1.8	0.3
Southeast	1.0	1.6	1.9	0.2
Central	1.2	1.1	1.4	0.2
West	1.1	0.6	1.2	0.2
Grade 12				
Northeast	1.8	1.3	1.5	0.2
Southeast	1.1	0.8	1.1	0.2
Central	1.5	1.4	1.4	0.2
West	0.9	1.1	1.1	0.3

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B3.5

Standard errors for percentage of students at or above achievement levels in writing by type of location: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Central city	1.0	1.0	1.0	0.2
Urban fringe/large town	0.9	0.9	1.3	0.3
Rural/small town	0.9	0.9	1.7	0.2
Grade 8				
Central city	1.2	1.2	1.4	0.2
Urban fringe/large town	1.0	1.0	1.7	0.2
Rural/small town	1.0	1.0	1.3	0.2
Grade 12				
Central city	1.2	1.2	1.5	0.2
Urban fringe/large town	1.3	1.3	1.3	0.2
Rural/small town	0.9	0.9	1.2	0.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.5

Standard errors for percentage of students within each achievement level range in writing by type of location: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Central city	1.0	0.7	0.9	0.2
Urban fringe/large town	0.9	1.2	1.2	0.3
Rural/small town	0.9	1.5	1.8	0.2
Grade 8				
Central city	1.2	0.9	1.3	0.2
Urban fringe/large town	1.0	1.1	1.5	0.2
Rural/small town	1.0	1.0	1.2	0.2
Grade 12				
Central city	1.2	0.9	1.4	0.2
Urban fringe/large town	1.3	1.0	1.2	0.2
Rural/small town	0.9	1.2	1.1	0.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B3.6

Standard errors for percentage of students at or above achievement levels in writing by Free/Reduced-Price School Lunch Program eligibility: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Eligible	1.1	1.1	0.7	0.1
Not eligible	0.4	0.4	1.2	0.3
Information not available	1.4	1.4	1.8	0.5
Grade 8				
Eligible	1.0	1.0	0.5	0.1
Not eligible	0.7	0.7	1.0	0.1
Information not available	1.2	1.2	2.1	0.4
Grade 12				
Eligible	1.3	1.3	0.7	---
Not eligible	0.9	0.9	1.0	0.2
Information not available	1.3	1.3	1.6	0.3

--- Standard error estimate cannot be accurately determined.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.6

Standard errors for percentage of students within each achievement level range in writing by Free/Reduced-Price School Lunch Program eligibility: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Eligible	1.1	0.9	0.7	0.1
Not eligible	0.4	1.1	1.1	0.3
Information not available	1.4	1.6	1.9	0.5
Grade 8				
Eligible	1.0	0.9	0.5	0.1
Not eligible	0.7	0.8	0.9	0.1
Information not available	1.2	1.5	1.9	0.4
Grade 12				
Eligible	1.3	1.5	0.6	---
Not eligible	0.9	1.0	0.9	0.2
Information not available	1.3	1.2	1.5	0.3

--- Standard error estimate cannot be accurately determined.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B3.7

Standard errors for percentage of students at or above achievement levels in writing by type of school: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Grade 4				
Public	0.5	0.5	0.9	0.2
Nonpublic	0.7	0.7	1.6	0.3
Nonpublic: Catholic	0.8	0.8	1.7	0.3
Other nonpublic	1.5	1.5	2.7	0.8
Grade 8				
Public	0.5	0.5	0.8	0.1
Nonpublic	0.8	0.8	1.6	0.5
Nonpublic: Catholic	0.6	0.6	1.9	0.6
Other nonpublic	1.6	1.6	2.8	0.7
Grade 12				
Public	0.7	0.7	0.8	0.1
Nonpublic	1.2	1.2	1.9	0.4
Nonpublic: Catholic	1.5	1.5	2.7	0.4
Other nonpublic	2.5	2.5	3.9	0.8

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B3.7

Standard errors for percentage of students within each achievement level range in writing by type of school: 1998

	Below Basic	At Basic	At Proficient	At Advanced
Grade 4				
Public	0.5	0.6	0.8	0.2
Nonpublic	0.7	1.5	1.5	0.3
Nonpublic: Catholic	0.8	1.7	1.5	0.3
Other nonpublic	1.5	2.4	2.5	0.8
Grade 8				
Public	0.5	0.5	0.7	0.1
Nonpublic	0.8	1.5	1.5	0.5
Nonpublic: Catholic	0.6	1.7	1.7	0.6
Other nonpublic	1.6	2.5	2.6	0.7
Grade 12				
Public	0.7	0.7	0.7	0.1
Nonpublic	1.2	1.8	1.7	0.4
Nonpublic: Catholic	1.5	2.4	2.5	0.4
Other nonpublic	2.5	3.4	3.8	0.8

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.1

Standard errors for students' reports on the frequency with which their teachers talk to them about what they are writing: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
Always	0.5	1.1	1.3
Sometimes	0.5	0.7	0.8
Never	0.4	1.1	1.1
Grade 8			
Always	0.7	0.6	0.8
Sometimes	0.5	0.8	1.0
Never	0.4	1.4	1.5
Grade 12			
Always	0.4	0.7	0.8
Sometimes	0.4	0.8	0.8
Never	0.2	1.5	1.5

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.2

Standard errors for students' reports on whether they or their teachers save their writing work in a folder or portfolio: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
Yes	0.7	0.7	0.8
No	0.7	1.1	1.3
Grade 8			
Yes	0.9	0.6	0.8
No	0.9	1.0	1.2
Grade 12			
Yes	0.9	0.6	0.8
No	0.9	1.0	0.9

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.3

Standard errors for students' reports on the frequency with which they use a computer to write drafts or final versions of stories or reports: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
At least once a week	0.6	0.9	1.0
Once/twice a month	0.5	0.9	1.2
Never/hardly ever	0.5	1.0	1.2
Grade 8			
At least once a week	0.6	1.0	1.4
Once/twice a month	0.8	0.8	1.3
Never/hardly ever	0.8	0.9	1.2
Grade 12			
At least once a week	0.7	0.9	1.1
Once/twice a month	0.4	0.7	1.1
Never/hardly ever	0.6	1.0	0.8

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.4

Standard errors for students' reports on the frequency with which their teachers ask them to write more than one draft of a paper: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
Always	0.5	1.1	1.5
Sometimes	0.6	0.7	0.8
Never	0.5	0.9	1.0
Grade 8			
Always	0.9	0.7	0.9
Sometimes	0.6	0.8	0.9
Never	0.5	1.5	1.6
Grade 12			
Always	0.8	0.7	0.8
Sometimes	0.5	0.9	1.0
Never	0.4	1.4	1.4

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.5

Standard errors for number of occurrences of planning in test booklets* on students' responses to two 25-minute writing prompts: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
No planning for either prompt	1.1	0.7	0.6
Planning for one prompt	0.4	0.9	1.3
Planning for both prompts	1.0	1.0	1.4
Grade 8			
No planning for either prompt	0.9	0.7	0.6
Planning for one prompt	0.4	0.9	1.1
Planning for both prompts	0.9	0.6	0.9
Grade 12			
No planning for either prompt	0.8	0.8	0.8
Planning for one prompt	0.4	0.8	1.0
Planning for both prompts	0.8	0.7	0.9

* Refers to writing that was visible on the page provided for planning in test booklets.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.6

Standard errors for students' reports on the frequency with which their English teachers ask them to plan their writing: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 8			
At least once a week	0.9	0.7	0.9
Once/twice a month	0.5	0.9	1.2
Never/hardly ever	0.7	0.9	1.3
Grade 12			
At least once a week	0.8	0.8	0.9
Once/twice a month	0.6	0.9	1.2
Never/hardly ever	0.6	1.2	1.3

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.7

Standard errors for frequency of student planning on 25-minute prompts in the assessment* by frequency with which their English teachers ask them to plan their writing, grades 8 and 12: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 8			
At least once a week			
No planning for either prompt	0.9	1.0	0.9
Planning for one prompt	0.4	1.1	1.3
Planning for both prompts	0.9	0.7	1.2
Once/twice a month			
No planning for either prompt	1.1	1.2	1.5
Planning for one prompt	0.7	1.6	2.3
Planning for both prompts	1.3	1.0	1.4
Never/hardly ever			
No planning for either prompt	1.6	1.2	1.3
Planning for one prompt	1.0	1.7	1.9
Planning for both prompts	1.7	1.6	2.4
Grade 12			
At least once a week			
No planning for either prompt	0.8	0.9	1.1
Planning for one prompt	0.5	0.9	1.2
Planning for both prompts	0.8	0.8	1.1
Once/twice a month			
No planning for either prompt	1.0	1.1	1.8
Planning for one prompt	0.8	1.1	1.4
Planning for both prompts	1.1	1.2	1.7
Never/hardly ever			
No planning for either prompt	1.4	1.6	1.5
Planning for one prompt	1.0	1.8	2.0
Planning for both prompts	1.1	1.9	2.3

* Refers to writing that was visible on the page provided for planning in test booklets.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.8

Standard errors for students' reports on the frequency with which their English teachers ask them to define their purpose and audience: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 8			
At least once a week	0.8	0.9	1.1
Once/twice a month	0.5	0.8	1.0
Never/hardly ever	0.8	0.7	1.1
Grade 12			
At least once a week	0.6	0.8	0.8
Once/twice a month	0.4	0.7	1.0
Never/hardly ever	0.6	0.9	1.2

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.9

Standard errors for students' reports on the presence of four types of reading materials in their home (a newspaper, an encyclopedia, magazines, and more than 25 books): 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
Two or fewer	0.6	0.8	0.7
Three	0.4	0.8	1.0
Four	0.6	0.8	1.3
Grade 8			
Two or fewer	0.4	0.9	0.7
Three	0.4	0.8	0.9
Four	0.5	0.7	1.1
Grade 12			
Two or fewer	0.4	1.1	0.7
Three	0.5	0.9	0.9
Four	0.6	0.8	1.1

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B4.10

Standard errors for students' reports on the frequency with which they discuss their studies at home: 1998

	Percentage	Scale Score	Percentage at or above Proficient
Grade 4			
At least once a week	0.4	0.7	0.8
Once/twice a month	0.2	1.3	2.3
Never/hardly ever	0.4	0.8	0.9
Grade 8			
At least once a week	0.6	0.6	0.9
Once/twice a month	0.3	1.2	1.7
Never/hardly ever	0.5	0.8	0.8
Grade 12			
At least once a week	0.5	0.7	0.8
Once/twice a month	0.3	1.3	1.4
Never/hardly ever	0.4	1.0	0.8

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.1

Standard errors for average grade 8 scale scores for the states for public schools only: 1998

	Average scale score
Nation	0.6
States	
Alabama	1.4
Arizona	1.5
Arkansas	1.2
California †	1.8
Colorado	1.3
Connecticut	1.4
Delaware	1.4
Florida	1.2
Georgia	1.3
Hawaii	1.0
Kentucky	1.5
Louisiana	1.4
Maine	1.5
Maryland	1.5
Massachusetts	1.7
Minnesota †	1.9
Mississippi	1.3
Missouri	1.4
Montana †	1.5
Nevada	0.9
New Mexico	0.8
New York †	1.5
North Carolina	1.5
Oklahoma	1.3
Oregon	1.5
Rhode Island	0.7
South Carolina	1.1
Tennessee	1.8
Texas	1.5
Utah	1.2
Virginia	1.2
Washington	1.5
West Virginia	1.6
Wisconsin †	1.3
Wyoming	1.4
Other Jurisdictions	
District of Columbia	1.2
DDESS	2.6
DoDDS	1.2
Virgin Islands	3.8

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.2

Standard errors for percentage of grade 8 students at or above achievement levels for public schools only: 1998

	Grade 8			
	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	0.5	0.5	0.8	0.1
States				
Alabama	1.3	1.3	1.3	0.2
Arizona	1.6	1.6	1.7	0.2
Arkansas	1.5	1.5	1.1	0.2
California †	1.6	1.6	1.7	0.3
Colorado	1.1	1.1	1.5	0.3
Connecticut	1.1	1.1	1.4	0.3
Delaware	1.2	1.2	1.6	0.5
Florida	1.1	1.1	1.8	0.2
Georgia	1.2	1.2	1.7	0.2
Hawaii	1.1	1.1	1.1	0.3
Kentucky	1.0	1.0	1.8	0.5
Louisiana	1.8	1.8	1.0	0.1
Maine	1.5	1.5	1.7	0.5
Maryland	1.6	1.6	1.6	0.3
Massachusetts	1.2	1.2	2.0	0.6
Minnesota †	1.4	1.4	2.1	0.3
Mississippi	1.6	1.6	0.9	
Missouri	1.5	1.5	1.4	0.1
Montana †	1.3	1.3	1.9	0.2
Nevada	1.2	1.2	1.0	0.2
New Mexico	1.1	1.1	1.4	0.2
New York †	1.5	1.5	1.5	0.2
North Carolina	1.2	1.2	1.7	0.4
Oklahoma	1.2	1.2	1.7	0.2
Oregon	1.4	1.4	1.5	0.3
Rhode Island	1.4	1.4	1.2	0.4
South Carolina	1.5	1.5	1.0	0.1
Tennessee	1.6	1.6	1.9	0.3
Texas	1.3	1.3	1.7	0.3
Utah	1.2	1.2	1.2	0.2
Virginia	0.9	0.9	1.4	0.2
Washington	1.4	1.4	1.9	0.4
West Virginia	1.5	1.5	1.7	0.2
Wisconsin †	1.1	1.1	1.6	0.3
Wyoming	1.5	1.5	1.7	0.4
Other Jurisdictions				
District of Columbia	1.9	1.9	1.1	0.3
DDESS	1.2	1.2	2.7	1.6
DoDDS	1.1	1.1	1.9	0.5
Virgin Islands	3.9	3.9	2.1	***

Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation (see Appendix A).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B5.3

Standard errors for percentage of grade 8 students within each achievement level range for public schools only: 1998

	Grade 8			
	Below Basic	At Basic	At Proficient	At Advanced
Nation	0.5	0.5	0.7	0.1
States				
Alabama	1.3	1.2	1.3	0.2
Arizona	1.6	1.7	1.6	0.2
Arkansas	1.5	1.7	1.1	0.2
California †	1.6	1.6	1.7	0.3
Colorado	1.1	1.4	1.3	0.3
Connecticut	1.1	1.1	1.4	0.5
Delaware	1.2	1.6	1.5	0.5
Florida	1.1	1.9	1.6	0.2
Georgia	1.2	1.6	1.6	0.2
Hawaii	1.1	1.1	1.2	0.3
Kentucky	1.0	1.6	1.5	0.5
Louisiana	1.8	1.7	0.9	0.1
Maine	1.5	1.8	1.7	0.5
Maryland	1.6	1.7	1.6	0.3
Massachusetts	1.2	1.9	1.8	0.6
Minnesota †	1.4	1.7	2.0	0.3
Mississippi	1.6	1.8	0.9	
Missouri	1.5	1.6	1.4	0.1
Montana †	1.3	1.7	1.8	0.2
Nevada	1.2	1.6	1.0	0.2
New Mexico	1.1	2.1	1.4	0.2
New York †	1.5	1.7	1.5	0.2
North Carolina	1.2	1.8	1.5	0.4
Oklahoma	1.2	1.8	1.6	0.2
Oregon	1.4	1.5	1.4	0.3
Rhode Island	1.4	2.4	1.1	0.4
South Carolina	1.5	1.3	1.0	0.1
Tennessee	1.6	1.6	1.7	0.3
Texas	1.3	1.5	1.7	0.3
Utah	1.2	1.0	1.1	0.2
Virginia	0.9	1.3	1.4	0.2
Washington	1.4	2.0	2.0	0.4
West Virginia	1.5	1.6	1.6	0.2
Wisconsin †	1.1	1.3	1.6	0.3
Wyoming	1.5	2.0	1.4	0.4
Other Jurisdictions				
District of Columbia	1.9	1.9	0.9	0.3
DDESS	1.2	2.6	2.3	1.6
DoDDS	1.1	2.2	1.7	0.5
Virgin Islands	3.9	3.0	2.0	

Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation (see Appendix A).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.3

Standard errors for average grade 8 scale scores and percentage of students at or above the *Proficient* level by gender for public schools only: 1998

	Male		Female	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	0.8	0.8	0.6	0.9
States				
Alabama	1.5	0.9	1.6	2.1
Arizona	1.9	1.4	1.9	2.4
Arkansas	1.5	1.0	1.2	1.7
California †	2.1	1.9	1.9	2.2
Colorado	1.4	1.0	1.8	2.5
Connecticut	1.4	1.6	1.7	[illegible]
Delaware	2.0	1.8	1.7	2.8
Florida	1.5	1.6	1.5	2.2
Georgia	1.6	1.8	1.5	2.1
Hawaii	1.4	1.4	1.4	2.2
Kentucky	1.8	1.7	1.5	2.1
Louisiana	1.7	1.0	1.6	1.6
Maine	1.6	1.8	1.9	2.8
Maryland	1.7	1.8	1.8	2.5
Massachusetts	2.0	2.0	1.8	2.6
Minnesota †	1.9	1.6	2.2	[illegible]
Mississippi	1.7	0.9	1.6	1.4
Missouri	1.5	1.4	1.7	2.2
Montana †	1.5	1.6	1.9	2.8
Nevada	1.8	1.3	1.3	1.6
New Mexico	1.2	1.5	1.7	2.4
New York †	1.8	1.8	1.7	2.2
North Carolina	1.8	1.9	1.4	2.0
Oklahoma	1.5	1.7	1.5	2.3
Oregon	1.9	1.6	1.7	2.3
Rhode Island	1.1	1.2	1.4	2.3
South Carolina	1.3	1.0	1.4	1.6
Tennessee	2.0	1.6	1.9	2.5
Texas	1.9	1.8	1.7	2.5
Utah	1.8	1.8	1.6	1.5
Virginia	1.4	1.6	1.3	2.0
Washington	1.6	1.8	18	2.4
West Virginia	2.1	1.7	1.6	2.0
Wisconsin †	1.6	2.1	1.5	2.2
Wyoming	2.2	1.5	2.7	3.6
Other Jurisdictions				
District of Columbia	2.5	1.3	2.0	1.7
DDESS	3.7	4.5	4.6	4.9
DoDDS	1.3	1.7	1.6	2.9
Virgin Islands	4.7	1.7	4.0	3.0

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.4

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Standard errors for average grade 8 scale scores and percentage of students at or above the *Proficient* level by race/ethnicity for public schools only: 1998

	White		Black		Hispanic		Asian/Pacific Isl.		American Indian	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	0.7	1.0	1.0	0.7	1.5	1.0	3.8	3.7	3.3	2.7
States										
Alabama	1.4	1.5	1.9	1.6	5.6	5.6	---	---	---	---
Arizona	1.6	2.3	3.2	4.2	2.2	1.4	5.3	8.2	6.3	5.7
Arkansas	1.3	1.5	1.8	1.2	5.0	3.1	---	---	---	---
California †	2.3	2.9	4.1	3.7	1.8	1.2	3.4	5.5	---	---
Colorado	1.4	1.9	4.9	4.6	2.2	1.4	4.9	6.3	---	---
Connecticut	1.4	1.6	3.1	2.9	3.9	3.7	---	---	---	---
Delaware	1.9	2.4	2.2	2.1	5.2	4.4	---	---	---	---
Florida	1.4	2.2	1.8	1.7	2.5	2.9	4.4	6.0	---	---
Georgia	1.6	2.3	1.9	1.4	4.8	3.4	6.3	6.9	---	---
Hawaii	3.2	2.9	4.6	4.5	2.7	1.9	1.3	1.4	---	---
Kentucky	1.5	1.8	3.6	2.4	5.8	4.8	---	---	---	---
Louisiana	1.4	1.4	2.3	1.0	3.8	2.9	---	---	---	---
Maine	1.4	1.8	---	---	---	---	---	---	---	---
Maryland	1.7	2.0	2.0	2.4	4.3	3.0	5.0	7.4	---	---
Massachusetts	1.6	2.1	3.4	3.6	3.6	1.8	4.3	7.2	---	---
Minnesota †	1.8	2.3	7.8	3.9	4.6	3.5	5.4	5.5	---	---
Mississippi	1.5	1.4	1.7	1.0	5.9	1.6	---	---	---	---
Missouri	1.6	1.7	2.9	1.9	4.4	2.0	---	---	---	---
Montana †	1.5	2.0	---	---	6.8	5.5	---	---	4.5	4.5
Nevada	1.3	1.3	3.9	3.8	2.2	1.7	4.7	6.3	5.4	3.5
New Mexico	1.6	2.4	5.2	6.0	1.0	1.4	---	---	2.7	2.2
New York †	1.5	2.2	3.4	2.2	2.0	1.4	4.7	7.8	---	---
North Carolina	1.9	2.2	1.7	1.6	4.9	5.6	---	---	8.1	5.8
Oklahoma	1.2	1.6	3.5	4.1	3.1	3.3	---	---	2.5	3.4
Oregon	1.5	1.7	---	---	3.9	3.7	5.0	5.7	4.5	4.9
Rhode Island	0.8	1.6	3.7	3.6	2.9	1.8	6.0	4.9	---	---
South Carolina	1.2	1.6	1.8	1.4	3.4	3.0	---	---	---	---
Tennessee	1.9	2.2	3.3	2.4	7.5	5.3	---	---	---	---
Texas	1.5	2.2	4.2	4.0	1.9	2.0	5.4	7.7	---	---
Utah	1.3	1.3	---	---	3.4	2.5	4.9	5.2	6.5	4.3
Virginia	1.3	1.8	1.5	1.7	3.0	3.2	3.0	6.8	---	---
Washington	1.7	2.1	3.9	4.5	3.2	2.1	3.4	5.1	3.6	3.1
West Virginia	1.7	1.7	4.0	5.0	7.6	3.5	---	---	---	---
Wisconsin †	1.3	1.7	4.6	3.7	4.1	4.5	---	---	---	---
Wyoming	1.5	2.0	---	---	3.8	3.4	---	---	7.5	6.0
Other Jurisdictions										
District of Columbia	7.7	9.0	1.2	1.4	5.5	3.9	---	---	---	---
DDESS	3.6	4.2	5.2	4.8	3.9	5.3	---	---	---	---
DoDDS	2.2	2.8	2.9	3.4	2.8	3.6	4.4	6.9	---	---
Virgin Islands	---	---	3.7	2.3	8.5	2.9	---	---	---	---

--- Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.5

Standard errors for average grade 8 scale scores and percentage of students at or above the *Proficient* level by parents' highest level of education for public schools only: 1998

	Graduated from college		Some education after high school		Graduated from high school		Did not finish high school		I don't know.	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	0.8	1.2	0.8	0.9	0.8	1.2	1.9	1.8	1.7	1.1
States										
Alabama	1.6	1.6	1.8	1.9	2.3	2.8	3.2	2.3	---	---
Arizona	1.6	2.2	2.4	2.7	2.1	2.3	3.7	2.8	3.3	1.3
Arkansas	1.9	2.1	1.6	1.9	1.7	1.8	4.1	3.1	5.0	2.9
California †	2.2	2.6	1.8	1.9	2.3	2.3	2.5	1.9	4.4	3.8
Colorado	1.3	1.6	2.0	2.5	2.3	3.5	2.9	3.0	4.6	4.2
Connecticut	1.6	1.7	2.6	2.8	2.6	3.6	6.2	4.9	5.1	[illegible]
Delaware	1.8	2.6	1.8	1.8	3.1	4.7	6.2	6.2	5.9	7.8
Florida	1.7	2.4	1.6	2.3	1.9	2.5	3.6	3.6	5.3	[illegible]
Georgia	1.8	2.2	1.5	1.8	2.7	3.2	3.3	2.4	---	
Hawaii	1.9	1.4	1.4	2.4	3.0	2.7	5.9	4.8	5.3	2.6
Kentucky	2.6	3.5	1.9	1.7	1.7	2.1	3.6	5.1	6.2	4.4
Louisiana	2.0	2.1	1.6	1.1	1.7	1.8	4.0	3.1	---	---
Maine	1.5	1.9	2.2	3.0	2.3	3.5	---	---	---	---
Maryland	1.8	2.2	2.0	2.3	2.4	2.1	---	---	---	---
Massachusetts	1.7	2.4	2.1	2.3	2.8	3.0	3.0	2.8	---	---
Minnesota †	2.0	2.9	2.2	2.0	2.6	2.4	---	---	---	
Mississippi	1.5	1.4	1.9	1.5	1.9	1.6	3.9	2.7	---	
Missouri	1.7	1.7	1.6	1.9	2.2	2.5	5.4	3.9	6.2	[illegible]
Montana †	1.9	2.8	2.5	2.6	2.5	3.2	---	---	---	
Nevada	1.7	2.1	1.2	1.5	2.3	1.9	3.0	2.8	4.1	2.9
New Mexico	1.9	2.5	1.8	2.3	2.4	2.4	4.3	2.9	6.1	3.6
New York †	1.7	1.8	1.9	1.8	2.2	3.3	5.5	4.3	4.0	5.6
North Carolina	1.8	2.4	2.0	2.0	2.3	2.5	4.1	3.4	---	---
Oklahoma	1.7	2.3	1.5	1.9	2.5	3.1	4.0	3.4	---	---
Oregon	1.9	2.4	1.9	3.1	2.6	2.3	4.4	3.3	6.1	3.3
Rhode Island	1.8	3.2	2.7	3.0	3.2	2.8	5.6	3.4	4.0	4.0
South Carolina	1.5	1.6	1.8	1.3	1.7	2.9	2.9	3.1	---	
Tennessee	2.3	3.3	2.1	2.6	2.0	2.4	3.4	3.7	---	
Texas	1.6	2.0	2.2	2.6	2.4	3.3	3.0	2.7	4.4	4.0
Utah	1.4	1.8	1.9	1.8	2.2	2.7	---	---	---	
Virginia	1.7	2.3	1.3	1.5	1.9	2.3	5.3	3.9	---	---
Washington	1.7	2.2	2.4	2.4	2.9	3.6	5.5	3.8	4.5	1.7
West Virginia	2.1	3.4	1.9	1.9	3.1	2.7	3.9	3.0	5.0	4.3
Wisconsin †	1.9	2.0	2.4	2.7	2.1	2.8	---	---	---	---
Wyoming	1.4	2.1	2.0	2.2	4.5	3.8	6.5	5.0	---	---
Other Jurisdictions										
District of Columbia	2.5	1.8	1.5	1.6	3.0	2.4	10.1	5.0	---	
DDESS	3.8	3.3	3.5	4.7			---	---	---	
DoDDS	2.0	2.9	2.8	3.5	5.5	8.0	---	---	---	---
Virgin Islands	6.1	4.1	5.9	3.0	4.8	2.8	---	---	---	---

--- Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table B5.6

Standard errors for average grade 8 scale scores and percentage of students at or above the *Proficient* level by type of location for public schools only: 1998

	Central city		Urban fringe/ large town		Rural/ small town	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	1.3	1.4	1.4	1.7	1.2	1.4
States						
Alabama	2.9	2.8	3.3	3.1	2.0	1.7
Arizona	2.1	2.1	2.7	3.1	3.1	3.1
Arkansas	2.6	2.2	2.7	3.9	1.6	1.4
California †	3.0	2.8	2.3	2.3	---	---
Colorado	2.3	2.1	1.8	2.4	3.2	4.2
Connecticut	3.6	2.8	1.8	2.4	2.6	2.8
Delaware	1.5	1.8	2.0	2.2	2.6	2.2
Florida	1.8	2.1	1.8	2.6	3.9	4.1
Georgia	2.8	2.9	2.1	2.6	2.1	2.7
Hawaii	2.1	1.7	1.8	1.9	1.9	1.7
Kentucky	5.0	5.9	2.0	2.4	1.7	2.3
Louisiana	3.0	2.3	2.2	1.5	1.8	1.8
Maine	3.8	3.9	2.8	3.9	1.7	1.9
Maryland	4.5	3.2	1.8	2.0	3.1	4.0
Massachusetts	3.5	3.8	2.6	3.6	2.2	2.9
Minnesota †	4.7	3.0	2.4	3.1	2.1	3.1
Mississippi	3.0	2.4	2.9	2.8	1.7	1.2
Missouri	3.6	3.3	2.1	2.2	2.4	2.0
Montana †	2.5	3.2	4.0	2.5	1.8	2.1
Nevada	0.9	1.3	1.5	1.3	2.7	1.5
New Mexico	2.0	2.7	1.7	2.7	1.5	2.2
New York †	2.5	2.0	2.1	2.9	3.0	3.5
North Carolina	2.9	3.5	2.4	2.0	2.1	2.7
Oklahoma	2.5	3.7	2.2	2.8	1.7	2.2
Oregon	3.6	3.7	2.3	2.3	2.1	2.3
Rhode Island	2.4	2.4	1.1	2.0	1.9	3.0
South Carolina	2.0	2.5	1.9	1.9	1.6	1.4
Tennessee	3.8	3.8	2.7	3.6	1.8	2.4
Texas	2.2	2.6	3.0	3.6	2.2	2.6
Utah	2.1	2.4	1.5	1.6	3.3	3.3
Virginia	1.8	2.3	1.6	2.3	2.4	2.3
Washington	2.3	2.5	2.6	3.2	2.7	3.1
West Virginia	2.2	2.9	3.2	4.4	1.7	1.6
Wisconsin †	3.0	3.1	2.1	3.4	2.0	2.7
Wyoming	3.1	3.5	---	---	1.3	1.3
Other Jurisdictions						
District of Columbia	1.2	1.1	---	---	---	---
DDESS	3.4	4.3	7.8	8.3	6.3	9.4
DoDDS	---	---	---	---	---	---
Virgin Islands	---	---	---	---	3.8	2.1

--- Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B5.7

Standard errors for average grade 8 scale scores and percentage of students at or above the *Proficient* level by Free/Reduced-Price School Lunch Program eligibility for public schools only: 1998

	Eligible		Not eligible	
	Average scale score	Percentage at or above Proficient	Average scale score	Percentage at or above Proficient
Nation	0.8	0.5	0.8	1.0
States				
Alabama	1.7	1.1	1.4	1.7
Arizona	1.9	1.5	1.9	2.6
Arkansas	1.6	1.0	1.2	1.8
California †	1.9	1.9	2.3	2.9
Colorado	2.4	2.3	1.5	1.9
Connecticut	2.9	2.3	1.6	1.8
Delaware	1.8	1.6	1.6	1.9
Florida	1.4	1.5	1.5	2.4
Georgia	1.7	1.3	1.4	1.9
Hawaii	1.9	1.6	1.1	1.5
Kentucky	1.8	1.8	1.8	2.5
Louisiana	1.7	0.8	1.5	1.8
Maine	2.8	2.8	1.3	1.9
Maryland	2.3	1.5	1.5	2.0
Massachusetts	2.5	1.9	1.5	2.0
Minnesota †	2.6	1.7	1.8	2.4
Mississippi	1.8	1.0	1.5	1.6
Missouri	2.1	1.3	1.5	1.8
Montana †	2.9	3.6	1.5	1.9
Nevada	2.1	1.5	1.3	1.4
New Mexico	1.2	1.3	1.3	2.0
New York †	2.4	1.5	1.9	2.6
North Carolina	2.0	1.4	1.6	2.3
Oklahoma	1.5	1.7	1.8	2.4
Oregon	2.1	1.6	1.5	1.9
Rhode Island	2.0	1.4	0.7	1.7
South Carolina	1.6	1.2	1.3	1.6
Tennessee	2.7	2.1	2.0	2.5
Texas	2.1	2.0	1.4	1.9
Utah	2.2	2.4	1.5	1.5
Virginia	1.5	1.4	1.4	1.8
Washington	2.1	1.6	1.6	2.3
West Virginia	2.1	1.2	1.6	2.6
Wisconsin †	2.7	2.5	1.4	1.9
Wyoming	2.7	1.6	1.8	2.2
Other Jurisdictions				
District of Columbia	1.6	1.2	2.7	2.1
DDESS	3.5	4.2	3.7	3.4
DoDDS	5.3	8.6	4.1	5.7
Virgin Islands	5.1	2.9		

Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B6.1

Standard errors for percentage of responses rated at different levels on the scoring guides on all 25-minute writing prompts: 1998

	Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
Grade 4						
Overall	0.1	0.3	0.4	0.4	0.3	0.2
Narrative	0.2	0.4	0.5	0.5	0.4	0.3
Informative	0.2	0.4	0.6	0.6	0.4	0.1
Persuasive	0.2	0.4	0.7	0.7	0.5	0.2
Grade 8						
Overall	0.2	0.3	0.4	0.4	0.3	0.1
Narrative	0.2	0.4	0.5	0.5	0.4	0.3
Informative	0.2	0.3	0.6	0.6	0.4	0.2
Persuasive	0.2	0.4	0.5	0.7	0.3	0.2
Grade 12						
Overall	0.2	0.3	0.3	0.4	0.4	0.2
Narrative	0.2	0.4	0.4	0.7	0.7	0.2
Informative	0.2	0.3	0.4	0.5	0.6	0.3
Persuasive	0.2	0.4	0.5	0.5	0.5	0.3

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B6.1

Standard errors for percentage of responses rated at different levels on the scoring guide, grade 4: *Castle*

Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
0.3	1.0	1.0	1.2	0.9	0.4

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B6.2

Standard errors for percentage of responses rated at different levels on the scoring guide, grade 8: *Designing a TV Show*

Unsatisfactory (1)	Insufficient (2)	Uneven (3)	Sufficient (4)	Skillful (5)	Excellent (6)
0.4	1.0	1.5	1.4	0.8	0.5

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B6.2

Standard errors for percentage of responses rated at different levels on the scoring guide by jurisdiction for *Designing a TV Show*, grade 8 public schools only: 1998

	Unsatisfactory	Insufficient	Uneven	Sufficient	Skillful	Excellent
Nation	0.4	1.1	1.5	1.5	0.9	0.5
States						
Alabama	0.9	2.5	3.0	3.2	1.4	---
Arizona	0.6	2.3	3.2	3.4	1.6	0.4
Arkansas	1.2	2.8	3.6	3.4	1.3	---
California †	1.9	2.3	3.6	2.7	1.8	0.6
Colorado	1.0	2.2	3.0	3.3	1.0	0.8
Connecticut	0.7	1.7	3.2	2.9	2.1	1.2
Delaware	0.5	2.9	3.8	2.4	2.0	0.5
Florida	1.1	2.3	3.0	2.9	1.7	0.8
Georgia	1.3	1.9	3.2	3.4	1.4	---
Hawaii	1.2	2.4	3.1	2.8	1.8	---
Kentucky	0.8	2.2	3.7	3.3	1.3	0.9
Louisiana	1.4	2.8	3.4	2.9	1.7	---
Maine	0.7	1.8	3.3	3.7	2.2	1.2
Maryland	---	2.2	4.0	3.2	2.1	1.1
Massachusetts	0.8	2.4	3.6	2.9	1.8	1.8
Minnesota †	1.0	2.7	3.9	3.5	1.8	1.1
Mississippi	1.4	3.4	3.5	2.8	1.3	---
Missouri	1.7	2.5	2.8	2.9	1.5	0.5
Montana †		2.0	3.7	3.7	2.5	0.8
Nevada	1.3	2.4	3.5	3.2	0.8	---
New Mexico	1.3	2.1	2.9	2.7	1.4	0.8
New York †	1.4	1.9	4.3	4.3	1.9	1.1
North Carolina	0.8	1.9	3.5	3.2	1.3	0.9
Oklahoma	0.5	1.3	3.5	3.8	1.7	1.1
Oregon	0.6	1.9	3.4	3.3	1.0	---
Rhode Island	0.7	2.6	3.4	2.9	1.5	0.6
South Carolina	2.5	2.3	3.3	3.3	1.2	
Tennessee	1.4	2.8	3.5	3.0	1.5	---
Texas	0.8	2.3	3.2	2.9	1.1	0.7
Utah	1.7	2.2	3.0	2.9	1.6	---
Virginia	---	1.8	3.6	3.6	1.4	---
Washington	0.6	2.8	3.8	2.7	2.1	---
West Virginia	0.8	2.6	3.5	3.3	1.4	---
Wisconsin †	---	2.6	4.0	3.8	1.8	---
Wyoming	1.3	2.2	3.5	3.2	1.3	1.1
Other Jurisdictions						
District of Columbia	2.4	3.2	4.1	3.9	1.3	
DDESS		---	---	---	---	
DoDDS		1.9	3.5	3.2	1.7	
Virgin Islands	3.4	4.7	6.8	4.2	---	

--- Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B6.3

THE NATION'S REPORT CARD naep

Standard errors for percentage of responses rated at different levels on the scoring guide by jurisdiction for *Space Visitor*, grade 8 public schools only: 1998

	Unsatisfactory	Insufficient	Uneven	Sufficient	Skillful	Excellent
Nation	0.4	0.9	1.1	1.3	1.1	0.8
States						
Alabama	0.6	2.2	2.5	3.8	2.3	2.0
Arizona	0.7	2.2	2.7	3.1	2.0	1.0
Arkansas	---	2.1	2.6	3.6	2.1	1.0
California †	---	2.6	2.6	3.4	2.8	1.5
Colorado	0.7	1.7	2.6	3.0	2.5	1.3
Connecticut	---	1.5	2.3	3.7	2.8	2.1
Delaware	1.1	2.4	2.5	3.3	2.2	1.9
Florida	1.1	2.0	3.2	3.7	1.8	1.3
Georgia	0.8	1.7	3.0	3.3	2.9	1.0
Hawaii	0.6	2.5	2.9	2.7	2.0	1.0
Kentucky	---	2.2	2.8	3.6	2.0	1.6
Louisiana	---	1.9	2.7	3.1	1.6	0.8
Maine	---	1.5	2.3	3.6	2.7	2.0
Maryland	0.5	1.9	2.9	3.6	2.5	1.2
Massachusetts	0.6	1.8	3.0	3.6	2.8	1.5
Minnesota †	1.0	2.3	2.9	3.4	2.7	1.4
Mississippi	---	2.8	2.5	3.4	1.7	0.7
Missouri	0.9	2.0	2.4	3.4	2.4	0.9
Montana †	1.0	2.0	3.6	3.7	2.5	1.6
Nevada	0.7	1.9	2.9	3.3	2.5	1.0
New Mexico	0.6	2.4	2.7	3.3	2.2	0.7
New York †	---	2.1	2.9	3.9	2.3	1.4
North Carolina	---	1.7	2.8	3.2	2.6	1.6
Oklahoma	---	1.5	2.4	4.0	3.0	1.4
Oregon	---	2.2	3.5	3.5	3.0	1.2
Rhode Island	---	1.9	2.6	4.0	2.3	1.6
South Carolina	---	2.1	3.2	3.5	2.0	0.8
Tennessee	---	1.8	3.0	4.0	2.7	1.2
Texas	---	1.6	2.9	3.4	2.0	1.2
Utah	0.7	2.5	2.6	3.2	2.1	1.2
Virginia	---	1.3	2.5	3.3	2.4	1.0
Washington	1.1	2.6	2.3	3.0	2.7	1.5
West Virginia	---	1.5	2.7	3.0	1.9	1.0
Wisconsin †	0.8	2.2	2.9	3.5	3.2	1.2
Wyoming	0.8	1.7	2.3	3.1	2.1	0.8
Other Jurisdictions						
District of Columbia	---	3.5	3.6	4.7	1.5	[illegible]
DDESS	---	2.1	5.0	6.7	4.8	2.2
DoDDS	---	1.9	2.0	3.4	2.9	1.8
Virgin Islands	---	---	---	[illegible]	[illegible]	[illegible]

--- standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table B6.4

Standard errors for percentage of responses rated at different levels on the scoring guide by jurisdiction for *Lengthening the School Year*, grade 8 public schools only: 1998

	Unsatisfactory	Insufficient	Uneven	Sufficient	Skillful	Excellent
Nation	0.5	0.9	1.4	1.4	0.9	0.5
States						
Alabama	1.2	2.1	3.5	3.3	1.8	---
Arizona	1.3	2.2	2.9	3.3	1.9	1.5
Arkansas	1.4	2.4	3.6	3.7	1.3	0.7
California †	1.4	2.5	3.2	3.0	2.2	1.2
Colorado	---	1.7	3.2	3.4	2.1	1.5
Connecticut	---	1.2	2.4	2.8	3.6	2.1
Delaware	0.9	3.0	3.1	3.3	2.7	0.8
Florida	1.5	2.2	3.3	3.2	2.1	0.9
Georgia	1.1	2.2	3.4	2.8	2.2	1.0
Hawaii	1.8	2.3	3.4	2.6	1.5	1.0
Kentucky	0.9	2.0	3.0	3.4	2.2	1.0
Louisiana	1.2	2.9	3.5	3.6	1.6	1.3
Maine	1.1	1.8	3.1	3.5	3.1	1.4
Maryland	---	2.5	2.8	3.7	3.1	0.8
Massachusetts	---	2.3	2.9	2.8	2.2	1.2
Minnesota †	1.0	2.5	3.1	4.0	2.5	1.6
Mississippi	1.2	2.5	2.9	3.4	1.1	0.8
Missouri	0.8	1.7	3.1	3.0	2.0	1.0
Montana †	---	2.2	2.6	3.6	2.1	1.1
Nevada	1.1	2.8	3.3	3.2	1.8	0.8
New Mexico	1.3	2.0	3.6	3.4	2.0	1.1
New York †	1.3	2.1	4.6	3.9	2.6	1.5
North Carolina	1.2	2.0	3.5	2.9	2.5	1.3
Oklahoma	1.0	1.5	3.4	2.9	1.7	1.2
Oregon	1.7	2.0	3.3	2.9	3.0	0.9
Rhode Island	1.2	1.5	2.9	3.4	2.3	1.1
South Carolina	1.0	2.6	3.4	4.1	1.4	0.8
Tennessee	1.1	2.3	3.8	3.6	2.2	0.8
Texas	1.0	1.5	3.4	3.4	3.0	1.8
Utah	0.9	2.4	3.0	3.2	1.8	1.1
Virginia	0.7	1.8	2.8	2.9	2.2	1.4
Washington	1.0	1.8	2.9	3.0	1.7	1.5
West Virginia	1.2	2.1	3.3	2.7	2.2	0.6
Wisconsin †	---	2.0	3.7	3.9	1.7	0.9
Wyoming	1.1	1.7	3.2	2.9	2.1	0.7
Other Jurisdictions						
District of Columbia	1.4	3.6	3.8	2.8	1.6	1.2
DDESS	---	---	---	---	---	---
DoDDS	---	1.9	2.5	3.2	2.0	1.1
Virgin Islands	2.7	5.3	6.3	5.4		

--- Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Figure B6.3 **Standard errors for percentage of responses rated at different levels on the scoring guide, grade 12: *One Vote***

Unsatisfactory	Insufficient	Uneven	Sufficient	Skillful	Excellent
0.6	1.1	1.2	1.3	0.9	0.4

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

APPENDIX C

State-Level Population Data

This appendix consists of tables showing the percentages of students within each subgroup for participating states and jurisdictions. Data are from 1998.

Table C.1

Percentages of grade 8 students by gender for public schools only: 1998

	Male	Female
Nation	51 (0.4)	49 (0.4)
States		
Alabama	49 (1.3)	51 (1.3)
Arizona	51 (0.9)	49 (0.9)
Arkansas	50 (0.7)	50 (0.7)
California [†]	48 (1.1)	52 (1.1)
Colorado	51 (1.0)	49 (1.0)
Connecticut	50 (1.0)	50 (1.0)
Delaware	51 (1.3)	49 (1.3)
Florida	49 (1.1)	51 (1.1)
Georgia	52 (1.1)	48 (1.1)
Hawaii	53 (0.8)	47 (0.8)
Kentucky	50 (1.2)	50 (1.2)
Louisiana	47 (1.2)	53 (1.2)
Maine	49 (1.0)	51 (1.0)
Maryland	50 (1.0)	50 (1.0)
Massachusetts	51 (1.1)	49 (1.1)
Minnesota [†]	51 (0.9)	49 (0.9)
Mississippi	49 (1.0)	51 (1.0)
Missouri	51 (1.0)	49 (1.0)
Montana [†]	50 (1.1)	50 (1.1)
Nevada	50 (1.1)	50 (1.1)
New Mexico	52 (1.0)	48 (1.0)
New York [†]	51 (1.2)	49 (1.2)
North Carolina	51 (1.0)	49 (1.0)
Oklahoma	52 (1.2)	48 (1.2)
Oregon	51 (1.1)	49 (1.1)
Rhode Island	51 (0.9)	49 (0.9)
South Carolina	51 (1.1)	49 (1.1)
Tennessee	48 (0.9)	52 (0.9)
Texas	49 (0.9)	51 (0.9)
Utah	49 (0.9)	51 (0.9)
Virginia	52 (0.9)	48 (0.9)
Washington	49 (1.2)	51 (1.2)
West Virginia	52 (0.9)	48 (0.9)
Wisconsin [†]	51 (1.1)	49 (1.1)
Wyoming	52 (0.8)	48 (0.8)
Other Jurisdictions		
District of Columbia	48 (1.1)	52 (1.1)
DDESS	51 (1.9)	49 (1.9)
DoDDS	49 (1.2)	51 (1.2)
Virgin Islands	44 (2.1)	56 (2.1)

[†] Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National percentages are based on the national assessment sample, not on aggregated state assessment samples.

The standard errors of the estimated percentages appear in parentheses.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table C.2

Percentages of grade 8 students by race/ethnicity for public schools only: 1998

	White	Black	Hispanic	Asian/Pacific Isl.	American Indian
Nation	65 (0.4)	15 (0.2)	14 (0.2)	3 (0.2)	1 (0.2)
States					
Alabama	64 (1.9)	29 (1.7)	4 (0.5)	1 (0.4)	1 (0.2)
Arizona	55 (1.9)	4 (0.6)	31 (1.6)	3 (0.4)	7 (1.0)
Arkansas	71 (1.4)	21 (1.4)	5 (0.5)	1 (0.2)	1 (0.2)
California †	37 (1.8)	7 (1.2)	43 (1.9)	11 (1.0)	2 (0.2)
Colorado	69 (1.4)	4 (0.4)	21 (1.4)	4 (0.5)	2 (0.2)
Connecticut	74 (1.5)	11 (1.1)	12 (0.9)	2 (0.3)	1 (0.1)
Delaware	63 (0.9)	24 (0.9)	8 (0.7)	2 (0.3)	2 (0.3)
Florida	51 (1.6)	26 (1.8)	19 (1.8)	3 (0.3)	1 (0.3)
Georgia	58 (1.7)	34 (1.7)	5 (0.6)	3 (0.4)	1 (0.2)
Hawaii	15 (0.8)	3 (0.5)	12 (0.7)	66 (1.2)	2 (0.2)
Kentucky	85 (1.1)	9 (0.8)	3 (0.4)	1 (0.2)	1 (0.2)
Louisiana	55 (1.4)	38 (1.4)	5 (0.5)	1 (0.3)	1 (0.2)
Maine	92 (0.8)	2 (0.3)	2 (0.3)	2 (0.3)	2 (0.3)
Maryland	56 (1.9)	32 (2.0)	6 (0.7)	4 (0.7)	2 (0.3)
Massachusetts	78 (1.5)	6 (0.9)	11 (1.5)	5 (0.7)	1 (0.2)
Minnesota †	82 (1.5)	5 (1.0)	6 (0.7)	5 (0.7)	3 (0.5)
Mississippi	49 (2.3)	44 (2.1)	5 (0.5)	1 (0.3)	1 (0.2)
Missouri	80 (1.5)	13 (1.2)	4 (0.5)	1 (0.2)	1 (0.3)
Montana †	86 (1.0)	1 (0.3)	6 (0.5)	1 (0.2)	6 (1.0)
Nevada	59 (1.0)	8 (0.6)	24 (0.9)	5 (0.3)	3 (0.5)
New Mexico	36 (1.3)	3 (0.3)	51 (1.2)	1 (0.3)	9 (1.1)
New York †	55 (2.5)	17 (2.0)	21 (1.8)	5 (1.0)	2 (0.3)
North Carolina	62 (1.4)	27 (1.4)	5 (0.5)	2 (0.3)	4 (0.4)
Oklahoma	73 (1.5)	7 (1.1)	8 (0.6)	2 (0.3)	10 (1.0)
Oregon	80 (1.1)	2 (0.6)	10 (0.7)	4 (0.5)	4 (0.5)
Rhode Island	75 (0.8)	7 (0.5)	12 (0.6)	4 (0.3)	1 (0.2)
South Carolina	54 (1.5)	36 (1.4)	5 (0.5)	2 (0.3)	2 (0.3)
Tennessee	73 (1.7)	21 (1.5)	4 (0.5)	1 (0.2)	1 (0.2)
Texas	48 (1.7)	12 (1.8)	36 (2.2)	3 (0.4)	1 (0.2)
Utah	84 (0.9)	1 (0.2)	9 (0.6)	3 (0.4)	2 (0.5)
Virginia	65 (1.6)	24 (1.4)	6 (0.5)	4 (0.5)	1 (0.2)
Washington	74 (1.5)	4 (0.4)	12 (1.1)	7 (0.9)	3 (0.4)
West Virginia	90 (0.9)	4 (0.5)	3 (0.4)	1 (0.2)	2 (0.3)
Wisconsin †	81 (1.7)	8 (1.3)	7 (1.0)	3 (0.5)	2 (0.4)
Wyoming	83 (0.8)	1 (0.3)	11 (0.6)	1 (0.2)	4 (0.6)
Other Jurisdictions					
District of Columbia	4 (0.5)	83 (0.6)	10 (0.9)	2 (0.1)	2 (0.2)
DDESS	41 (1.8)	26 (1.7)	27 (1.5)	3 (0.6)	1 (0.4)
DoDDS	46 (0.9)	18 (0.7)	17 (0.7)	14 (0.7)	2 (0.3)
Virgin Islands	1 (0.4)	76 (1.9)	20 (1.7)	0 (—)	1 (0.3)

(—) Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National percentages are based on the national assessment sample, not on aggregated state assessment samples.
Percentages may not add to 100 due to rounding.

The standard errors of the estimated percentages appear in parentheses.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table C.3

Percentages of grade 8 students by parents' highest education level for public schools only: 1998

	Did not graduate	Graduated high school	Some education after high school	Graduated college	I don't know.
Nation	5 (0.3)	16 (0.4)	28 (0.6)	48 (0.9)	3 (0.1)
States					
Alabama	6 (0.6)	16 (0.8)	29 (1.0)	46 (1.5)	2 (0.3)
Arizona	7 (0.6)	14 (0.8)	32 (1.0)	43 (1.5)	4 (0.4)
Arkansas	5 (0.4)	18 (0.7)	31 (1.0)	42 (1.1)	4 (0.4)
California †	9 (0.9)	13 (0.8)	28 (1.0)	43 (1.7)	6 (0.6)
Colorado	4 (0.5)	14 (0.8)	25 (1.1)	55 (1.6)	3 (0.3)
Connecticut	3 (0.4)	14 (0.9)	25 (1.0)	56 (1.3)	3 (0.3)
Delaware	3 (0.3)	18 (1.0)	32 (1.0)	44 (1.3)	3 (0.4)
Florida	4 (0.5)	15 (0.8)	33 (1.2)	45 (1.6)	3 (0.3)
Georgia	4 (0.5)	15 (0.7)	30 (1.3)	48 (1.6)	2 (0.3)
Hawaii	3 (0.3)	20 (0.9)	29 (0.9)	44 (1.1)	4 (0.4)
Kentucky	7 (0.5)	19 (1.0)	34 (1.2)	38 (1.4)	3 (0.3)
Louisiana	5 (0.4)	18 (0.9)	37 (1.0)	39 (1.2)	2 (0.3)
Maine	2 (0.3)	17 (1.0)	27 (0.9)	52 (1.3)	2 (0.3)
Maryland	2 (0.3)	15 (0.8)	27 (1.2)	53 (1.7)	3 (0.3)
Massachusetts	4 (0.5)	16 (0.9)	24 (1.0)	54 (1.6)	3 (0.2)
Minnesota †	3 (0.4)	15 (0.9)	25 (1.1)	55 (1.7)	2 (0.4)
Mississippi	5 (0.5)	15 (0.7)	30 (1.1)	47 (1.3)	2 (0.3)
Missouri	4 (0.5)	18 (0.8)	32 (1.0)	44 (1.3)	3 (0.4)
Montana †	3 (0.5)	14 (0.8)	25 (1.2)	56 (1.5)	2 (0.3)
Nevada	7 (0.5)	16 (0.7)	32 (1.1)	42 (0.9)	4 (0.3)
New Mexico	7 (0.7)	16 (0.9)	30 (0.9)	43 (1.3)	4 (0.4)
New York †	4 (0.6)	15 (1.0)	26 (1.1)	51 (1.8)	4 (0.5)
North Carolina	4 (0.5)	14 (0.9)	28 (1.0)	53 (1.4)	2 (0.3)
Oklahoma	4 (0.5)	15 (0.7)	31 (1.1)	48 (1.5)	2 (0.3)
Oregon	4 (0.4)	14 (0.9)	28 (1.0)	50 (1.4)	3 (0.4)
Rhode Island	6 (0.5)	13 (0.7)	26 (1.0)	50 (0.9)	5 (0.5)
South Carolina	4 (0.4)	18 (0.9)	28 (1.0)	47 (1.4)	2 (0.3)
Tennessee	6 (0.6)	18 (0.9)	30 (1.0)	44 (1.7)	2 (0.4)
Texas	9 (0.9)	14 (0.9)	29 (1.1)	45 (1.9)	3 (0.4)
Utah	2 (0.3)	13 (0.7)	25 (0.9)	58 (1.1)	2 (0.3)
Virginia	3 (0.4)	16 (0.9)	28 (1.1)	51 (1.5)	2 (0.3)
Washington	4 (0.7)	13 (0.8)	26 (0.9)	53 (1.6)	3 (0.4)
West Virginia	6 (0.6)	22 (0.9)	30 (0.9)	39 (1.1)	3 (0.4)
Wisconsin †	3 (0.6)	21 (1.0)	27 (1.1)	47 (1.3)	2 (0.3)
Wyoming	3 (0.3)	15 (0.8)	28 (0.9)	52 (0.9)	2 (0.3)
Other Jurisdictions					
District of Columbia	4 (0.6)	16 (1.1)	40 (1.3)	37 (1.0)	3 (0.5)
DDESS	1 (0.4)	8 (0.9)	33 (2.0)	57 (2.2)	2 (0.5)
DoDDS	1 (0.2)	9 (0.7)	31 (0.9)	57 (1.1)	2 (0.2)
Virgin Islands	7 (1.1)	20 (1.8)	39 (2.0)	28 (1.8)	6 (1.0)

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National percentages are based on the national assessment sample, not on aggregated state assessment samples.
Percentages may not add to 100 due to rounding.

The standard errors of the estimated percentages appear in parentheses.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table C.4

THE NATION'S REPORT CARD naep

Percentages of grade 8 students by type of location for public schools only: 1998

	Central city	Urban fringe/ large town	Rural/ small town
Nation	31 (1.6)	39 (2.0)	29 (1.5)
States			
Alabama	28 (2.4)	23 (0.7)	49 (2.5)
Arizona	58 (1.9)	27 (2.5)	15 (2.2)
Arkansas	25 (1.5)	14 (1.6)	62 (2.2)
California †	40 (1.7)	56 (2.1)	4 (1.2)
Colorado	33 (1.6)	42 (1.9)	24 (1.5)
Connecticut	21 (1.1)	50 (1.9)	30 (1.6)
Delaware	40 (0.2)	30 (0.2)	30 (0.2)
Florida	45 (1.4)	45 (1.8)	9 (1.8)
Georgia	13 (0.9)	48 (1.8)	39 (2.0)
Hawaii	27 (0.3)	42 (0.3)	30 (0.2)
Kentucky	23 (1.0)	25 (2.5)	52 (2.7)
Louisiana	33 (1.9)	31 (2.4)	36 (3.8)
Maine	10 (1.6)	11 (1.6)	79 (1.6)
Maryland	17 (1.2)	65 (2.1)	18 (1.8)
Massachusetts	27 (1.1)	42 (1.8)	31 (1.6)
Minnesota †	14 (1.3)	48 (2.6)	38 (2.4)
Mississippi	12 (1.1)	25 (2.9)	63 (2.6)
Missouri	22 (1.4)	40 (1.8)	38 (1.8)
Montana †	19 (0.8)	10 (1.0)	70 (1.1)
Nevada	54 (1.2)	29 (1.3)	16 (1.5)
New Mexico	31 (1.2)	28 (1.0)	41 (0.8)
New York †	42 (2.4)	37 (2.5)	21 (2.5)
North Carolina	33 (1.4)	25 (1.6)	43 (1.3)
Oklahoma	18 (0.8)	38 (2.1)	44 (2.3)
Oregon	28 (0.9)	37 (1.2)	35 (1.0)
Rhode Island	33 (0.2)	46 (0.2)	21 (0.2)
South Carolina	27 (1.4)	32 (1.7)	42 (1.5)
Tennessee	39 (1.4)	25 (1.4)	37 (1.8)
Texas	49 (1.0)	28 (1.4)	23 (1.4)
Utah	29 (1.0)	50 (1.8)	21 (1.7)
Virginia	29 (1.1)	39 (1.7)	32 (1.4)
Washington	32 (0.9)	41 (1.2)	27 (1.3)
West Virginia	13 (0.3)	20 (1.7)	67 (1.7)
Wisconsin †	31 (1.4)	28 (2.0)	41 (1.9)
Wyoming	26 (0.3)	4 (0.2)	70 (0.4)
Other Jurisdictions			
District of Columbia	100 (---)	0 (---)	0 (---)
DDESS	51 (0.8)	31 (0.6)	18 (0.5)
DoDDS	*** (***)	*** (***)	*** (***)
Virgin Islands	0 (---)	0 (---)	100 (---)

*** (***) Sample size is insufficient to permit a reliable estimate.

(---) Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National percentages are based on the national assessment sample, not on aggregated state assessment samples.
Percentages may not add to 100 due to rounding.

The standard errors of the estimated percentages appear in parentheses.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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Table C.5

Percentages of grade 8 students by Free/Reduced-Price School Lunch Program eligibility for public schools only: 1998

	Eligible	Not eligible	Information not available
Nation	30 (1.0)	58 (1.7)	12 (2.0)
States			
Alabama	39 (1.8)	59 (2.1)	2 (1.2)
Arizona	33 (2.2)	52 (2.8)	15 (2.6)
Arkansas	35 (1.8)	60 (1.9)	5 (1.5)
California †	39 (3.1)	45 (3.2)	17 (3.5)
Colorado	24 (1.5)	65 (2.7)	11 (2.8)
Connecticut	18 (1.4)	68 (3.1)	13 (3.2)
Delaware	27 (1.1)	63 (1.1)	11 (0.3)
Florida	40 (1.7)	50 (2.8)	10 (2.4)
Georgia	35 (1.6)	53 (3.2)	12 (3.1)
Hawaii	37 (0.8)	59 (0.9)	4 (0.4)
Kentucky	39 (1.6)	57 (1.7)	4 (1.6)
Louisiana	48 (2.0)	43 (2.3)	9 (2.6)
Maine	26 (1.1)	66 (1.7)	7 (1.6)
Maryland	28 (1.5)	69 (2.0)	3 (1.7)
Massachusetts	23 (1.6)	73 (1.9)	5 (1.8)
Minnesota †	23 (1.7)	70 (3.0)	7 (2.7)
Mississippi	51 (2.3)	42 (2.3)	7 (2.3)
Missouri	28 (1.8)	69 (1.9)	3 (1.5)
Montana †	24 (1.5)	67 (2.3)	9 (2.5)
Nevada	26 (1.0)	65 (1.1)	9 (1.0)
New Mexico	43 (1.8)	42 (1.8)	15 (2.0)
New York †	37 (2.5)	46 (3.7)	17 (4.2)
North Carolina	32 (1.3)	61 (2.4)	7 (2.3)
Oklahoma	34 (2.1)	57 (2.9)	9 (2.5)
Oregon	26 (1.7)	69 (2.2)	5 (1.9)
Rhode Island	27 (0.7)	71 (0.7)	1 (0.1)
South Carolina	41 (1.6)	55 (2.4)	4 (2.2)
Tennessee	33 (1.8)	65 (2.0)	2 (1.3)
Texas	38 (2.0)	59 (2.2)	3 (1.3)
Utah	22 (1.1)	67 (1.7)	11 (1.6)
Virginia	23 (1.3)	70 (2.2)	7 (2.1)
Washington	23 (1.4)	67 (2.9)	10 (2.8)
West Virginia	39 (1.4)	57 (1.5)	3 (1.2)
Wisconsin †	21 (2.2)	71 (3.2)	8 (3.0)
Wyoming	24 (1.0)	74 (1.0)	2 (0.2)
Other Jurisdictions			
District of Columbia	61 (1.0)	21 (0.8)	17 (0.5)
DDESS	33 (1.5)	65 (1.6)	2 (0.2)
DoDDS	5 (0.4)	22 (0.7)	73 (0.7)
Virgin Islands	80 (0.7)	0 (---)	20 (0.7)

(---) Standard error estimate cannot be accurately determined.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National percentages are based on the national assessment sample, not on aggregated state assessment samples.

Percentages may not add to 100 due to rounding.

The standard errors of the estimated percentages appear in parentheses.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

APPENDIX D

State-Level Contextual Variables

To help better place results from the NAEP 1998 state assessment program into context, this appendix presents selected state-level data from sources other than NAEP. These data are taken from the *Digest of Education Statistics 1997.*

Table D.1a

School system characteristics from non-NAEP sources

	Estimated total and school-age resident population: 1997 (estimates as of July 1)[1]		Enrollment in public elementary and secondary schools: Fall 1996[2]		
	Total, all ages (in thousands)	5- to 17-year-olds (in thousands)	Total	Kindergarten through grade 8	Grades 9 to 12
Nation	267,636	50,378	45,592,213	32,758,548	12,833,665
States					
Alabama	4,319	779	748,156	540,176	207,980
Alaska	609	139	129,919	94,362	35,557
Arizona	4,555	904	799,250	588,409	210,841
Arkansas	2,523	486	457,349	324,448	132,901
California	32,268	6,291	5,687,901	4,131,084	1,556,817
Colorado	3,893	742	673,438	487,304	186,134
Connecticut	3,270	575	527,129	389,374	137,755
Delaware	732	128	110,549	77,981	32,568
District of Columbia	529	74	78,648	61,138	17,510
Florida	14,654	2,520	2,242,212	1,653,162	589,050
Georgia	7,486	1,430	1,346,761	990,850	355,911
Hawaii	1,187	214	187,653	136,184	51,469
Idaho	1,210	260	245,252	169,419	75,833
Illinois	11,896	2,271	1,973,040	1,412,176	560,864
Indiana	5,864	1,090	983,415	689,578	293,837
Iowa	2,852	542	502,941	341,630	161,311
Kansas	2,595	509	466,293	328,023	138,270
Kentucky	3,908	704	656,089	466,177	189,912
Louisiana	4,352	877	793,296	575,318	217,978
Maine	1,242	228	213,593	155,611	57,982
Maryland	5,094	922	818,583	596,643	221,940
Massachusetts	6,118	1,052	933,898	687,693	246,205
Michigan	9,774	1,852	1,684,386	1,221,755	462,631
Minnesota	4,686	935	847,204	588,752	258,452
Mississippi	2,731	551	503,967	363,864	140,103
Missouri	5,402	1,040	900,942	643,053	256,989
Montana	879	175	164,627	114,672	49,955
Nebraska	1,657	330	291,967	202,846	89,121
Nevada	1,677	313	282,131	207,724	74,407
New Hampshire	1,173	222	198,308	143,880	54,428
New Jersey	8,053	1,430	1,208,179	884,389	323,790
New Mexico	1,730	365	332,632	230,012	102,620
New York	18,137	3,246	2,843,131	2,000,001	843,130
North Carolina	7,425	1,355	1,210,108	886,153	323,955
North Dakota	641	125	120,123	82,171	37,952
Ohio	11,186	2,090	1,844,389	1,298,719	545,670
Oklahoma	3,317	652	620,695	445,496	175,199
Oregon	3,243	598	537,854	380,239	157,615
Pennsylvania	12,020	2,126	1,804,256	1,263,576	540,680
Rhode Island	987	171	151,324	110,476	40,848
South Carolina	3,760	702	653,011	467,885	185,126
South Dakota	738	148	143,331	99,160	44,171
Tennessee	5,368	963	905,089	657,541	247,548
Texas	19,439	3,969	3,828,975	2,800,017	1,028,958
Utah	2,059	492	481,812	327,981	153,831
Vermont	589	111	106,341	76,076	30,265
Virginia	6,734	1,192	1,096,093	796,302	299,791
Washington	5,610	1,068	974,504	687,445	287,059
West Virginia	1,816	308	304,052	208,970	95,082
Wisconsin	5,170	1,011	879,259	605,322	273,937
Wyoming	480	101	99,058	67,331	31,727

[1] U.S. Department of Commerce, Bureau of Census, *Current Population Reports*, Series P-25, No. 1095 at the national level. CPH-L-74 (1990 data) and forthcoming state-level P-25 Reports. (Data prepared October 1998.)

[2] U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys. (Data prepared May 1998.)

Table D.1b

School system characteristics from non-NAEP sources

	Poverty status of 5- to 17-year-olds: 1996		Number of children (birth to age 21) served under state-operated Individuals With Disabilities Education Act and Chapter 1 of the Education Consolidation and Improvement Act Programs[2]	
	Number in poverty (in thousands)	**Percent in poverty**	**1996–97 school year**	**Percent change: 1990–91 to 1996–97**
Nation	9,590	18.9	5,919,767	24.3
Alabama	170	20.7	99,302	4.6
Alaska	17	9.8	18,061	22.5
Arizona	292	29.6	81,099	41.7
Arkansas	105	19.5	57,475	20.2
California	1,474	23.5	604,075	28.7
Colorado	88	11.2	73,992	29.6
Connecticut	159	23.5	84,412	30.7
Delaware	17	12.4	16,421	14.9
District of Columbia	31	38.1	7,059	12.2
Florida	458	19.8	334,707	41.8
Georgia	278	19.6	144,512	41.7
Hawaii	32	15.7	20,350	54.5
Idaho	40	16.3	26,128	18.7
Illinois	388	16.5	275,198	15.1
Indiana	79	7.9	142,667	24.4
Iowa	71	11.8	69,060	13.8
Kansas	56	10.7	56,845	25.7
Kentucky	203	27.0	87,137	9.7
Louisiana	235	27.7	94,727	28.6
Maine	26	14.0	33,678	20.3
Maryland	137	14.9	108,453	18.0
Massachusetts	144	13.1	168,082	8.7
Michigan	286	15.7	198,772	19.1
Minnesota	130	13.0	103,929	28.5
Mississippi	163	26.0	66,161	8.6
Missouri	120	11.4	127,864	25.4
Montana	46	24.9	19,119	11.1
Nebraska	41	12.0	40,578	23.9
Nevada	24	8.3	30,913	67.6
New Hampshire	13	6.8	27,592	40.4
New Jersey	181	13.9	206,252	13.8
New Mexico	136	32.2	51,280	42.3
New York	868	25.0	427,907	39.2
North Carolina	222	17.5	158,272	28.5
North Dakota	13	10.2	12,991	3.9
Ohio	367	16.7	243,312	18.4
Oklahoma	173	24.2	75,601	15.2
Oregon	112	18.4	65,543	18.8
Pennsylvania	349	15.8	222,494	1.4
Rhode Island	18	12.4	27,354	29.8
South Carolina	154	21.1	92,787	19.3
South Dakota	16	11.6	15,485	3.3
Tennessee	231	20.6	128,672	22.7
Texas	858	22.5	472,661	34.8
Utah	39	8.6	55,848	17.0
Vermont	19	16.3	12,076	1.5
Virginia	183	17.9	146,840	28.8
Washington	158	15.5	109,227	27.9
West Virginia	56	22.4	49,092	13.8
Wisconsin	105	10.4	114,407	31.6
Wyoming	9	9.2	13,298	18.7

U.S. Department of Commerce, Bureau of the Census, Decennial Census, *Minority Economic Profiles*, unpublished data; and *Current Population Reports*, Series P-60, "Poverty in the United States," "Money Income of Households, Families, and Persons in the United States," and "Income, Poverty, and Valuation of Noncash Benefits," various years, and "Money Income in the U.S.: 1996," P60-193. (Data prepared June 1998.)

U.S. Department of Education, Office of Special Education and Rehabilitative Services, *Annual Report to Congress on the Implementation of The Individuals with Disabilities Education Act*, various years, and unpublished tabulations. (Data prepared March 1998.)

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Table D.1c

School system characteristics from non-NAEP sources

	Elementary and secondary education expenditures per capita: 1994–95[1]	Pupil-teacher ratios in public elementary and secondary schools: Fall 1996[2]	Estimated annual salaries of teachers in public elementary and secondary schools (current dollars)	
			NEA: 1997–98[3]	AFT: 1997–98[4]
Nation	$1,006	17.1	$39,385	$39,347
Alabama	709	16.6	32,818	32,799
Alaska	1,888	17.5	51,738	48,275
Arizona	885	19.7	33,850	34,071
Arkansas	757	17.1	30,578	32,119
California	898	22.9	43,725	44,585
Colorado	981	18.5	37,502	37,240
Connecticut	1,208	14.4	50,730	51,727
Delaware	1,056	16.6	42,439	42,439
District of Columbia	1,113	14.9	46,350	44,746
Florida	931	18.6	34,475	34,473
Georgia	981	17.0	37,378	37,412
Hawaii	813	17.7	38,377	36,598
Idaho	936	18.8	32,775	32,834
Illinois	953	17.0	43,873	43,707
Indiana	973	17.3	39,682	39,752
Iowa	943	15.4	34,040	34,084
Kansas	996	15.1	36,811	33,800
Kentucky	782	16.7	34,525	34,453
Louisiana	848	16.6	29,650	30,090
Maine	989	13.7	34,349	34,349
Maryland	1,026	17.1	41,739	41,404
Massachusetts	1,006	14.5	43,930	44,285
Michigan	1,149	19.1	49,227	48,361
Minnesota	1,284	17.6	39,106	39,104
Mississippi	814	17.2	29,547	28,691
Missouri	904	15.1	33,975	34,001
Montana	1,092	16.0	30,617	30,617
Nebraska	1,123	14.5	32,668	32,668
Nevada	848	19.1	37,093	40,572
New Hampshire	987	15.6	36,640	36,663
New Jersey	1,388	13.6	50,442	50,284
New Mexico	885	16.7	30,152	30,309
New York	1,433	15.4	49,034	48,712
North Carolina	849	16.1	33,315	33,123
North Dakota	879	15.2	28,230	28,231
Ohio	982	17.0	38,977	39,099
Oklahoma	942	15.7	30,606	30,940
Oregon	1,038	20.1	42,150	42,301
Pennsylvania	941	17.0	47,650	47,542
Rhode Island	1,049	14.2	44,300	44,506
South Carolina	877	15.7	33,608	33,608
South Dakota	922	14.9	27,341	27,839
Tennessee	758	16.5	35,340	34,584
Texas	975	15.5	33,648	33,537
Utah	1,010	24.4	32,950	32,981
Vermont	1,061	13.7	36,299	36,299
Virginia	958	14.7	36,654	37,024
Washington	1,118	20.2	38,788	38,755
West Virginia	977	14.6	33,396	33,396
Wisconsin	1,139	16.1	39,899	38,179
Wyoming	1,307	14.7	32,022	32,022

[1] U.S. Department of Commerce, Bureau of the Census, unpublished data. (Data prepared February 1999.)

[2] U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys. (Data prepared May 1998.)

[3] National Education Association, *Estimates of School Statistics*, and unpublished data. (Latest edition 1997-98. Copyright © 1998 by the National Education Association. All rights reserved.) (Data prepared October 1998.)

[4] American Federation of Teachers, *Survey and Analysis of Salary Trends*, 1998.

APPENDIX E

Additional State-Level Achievement Results for Subgroups

This chapter shows more complete state-by-state achievement level results for selected student subgroups to supplement the information in Chapter 5. It shows percentages below the *Basic* achievement level, at or above *Basic*, at or above *Proficient*, and at *Advanced* for those subgroups. This information is for public schools only. Appendix F presents overall state-by-state results for nonpublic schools.

Table E.1

THE NATION'S REPORT CARD naep

Percentage of grade 8 students at or above achievement levels by gender for public schools only: 1998

	Male				Female			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	24(0.9)	76(0.9)	15(0.8)	0(0.1)	10(0.4)	90(0.4)	34(0.9)	2(0.2)
States								
Alabama	25(1.9)	75(1.9)	9(0.9)	0(****)	9(1.2)	91(1.2)	25(2.1)	1(0.3)
Arizona	28(2.6)	72(2.6)	13(1.4)	0(****)	12(1.7)	88(1.7)	29(2.4)	1(0.3)
Arkansas	34(2.1)	66(2.1)	6(1.0)	0(****)	13(1.2)	87(1.2)	21(1.7)	0(0.3)
California †	30(2.1)	70(2.1)	15(1.9)	1(0.3)	18(1.7)	82(1.7)	25(2.2)	2(0.4)
Colorado	20(1.7)	80(1.7)	16(1.0)	0(0.1)	8(1.0)	92(1.0)	38(2.5)	2(0.6)
Connecticut	13(1.4)	87(1.4)	33(1.6)	2(0.4)	5(1.3)	95(1.3)	55(1.9)	7(0.9)
Delaware	28(1.7)	72(1.7)	13(1.8)	0(****)	12(1.3)	88(1.3)	32(2.8)	2(0.9)
Florida	31(1.9)	69(1.9)	11(1.6)	0(****)	13(1.3)	87(1.3)	28(2.2)	1(0.4)
Georgia	24(1.7)	76(1.7)	15(1.8)	0(0.2)	10(1.1)	90(1.1)	31(2.1)	1(0.4)
Hawaii	38(1.9)	62(1.9)	7(1.4)	0(****)	16(1.0)	84(1.0)	23(2.2)	1(0.5)
Kentucky	25(1.8)	75(1.8)	11(1.7)	0(****)	8(1.0)	92(1.0)	30(2.1)	1(0.8)
Louisiana	34(2.9)	66(2.9)	5(1.0)	0(****)	17(1.4)	83(1.4)	17(1.6)	0(****)
Maine	22(2.0)	78(2.0)	20(1.8)	1(0.4)	5(1.3)	95(1.3)	44(2.8)	3(0.9)
Maryland	24(2.1)	76(2.1)	13(1.8)	0(****)	10(1.5)	90(1.5)	33(2.5)	1(0.6)
Massachusetts	19(1.9)	81(1.9)	20(2.0)	1(0.3)	7(1.1)	93(1.1)	44(2.6)	4(1.1)
Minnesota †	26(2.0)	74(2.0)	11(1.6)	0(****)	8(1.2)	92(1.2)	39(3.0)	1(0.5)
Mississippi	36(2.4)	64(2.4)	6(0.9)	0(****)	16(1.8)	84(1.8)	16(1.4)	0(****)
Missouri	30(2.1)	70(2.1)	9(1.4)	0(****)	11(1.5)	89(1.5)	27(2.2)	1(0.2)
Montana †	22(1.8)	78(1.8)	14(1.6)	0(****)	6(1.4)	94(1.4)	37(2.8)	2(0.5)
Nevada	30(2.2)	70(2.2)	10(1.3)	0(****)	15(1.6)	85(1.6)	24(1.6)	1(0.3)
New Mexico	29(2.1)	71(2.1)	10(1.5)	0(****)	12(1.2)	88(1.2)	27(2.4)	1(0.4)
New York †	22(2.5)	78(2.5)	13(1.8)	0(****)	11(1.3)	89(1.3)	28(2.2)	0(****)
North Carolina	23(1.8)	77(1.8)	18(1.9)	1(0.2)	8(1.1)	92(1.1)	37(2.0)	2(0.7)
Oklahoma	17(1.7)	83(1.7)	14(1.7)	0(0.2)	6(1.0)	94(1.0)	36(2.3)	1(0.3)
Oregon	24(1.9)	76(1.9)	15(1.6)	0(****)	9(1.4)	91(1.4)	38(2.3)	2(0.5)
Rhode Island	23(2.1)	77(2.1)	17(1.2)	1(0.3)	10(1.4)	90(1.4)	34(2.3)	2(0.6)
South Carolina	30(1.7)	70(1.7)	7(1.0)	0(****)	12(1.9)	88(1.9)	24(1.6)	0(0.2)
Tennessee	22(2.1)	78(2.1)	15(1.6)	0(0.2)	10(1.4)	90(1.4)	32(2.5)	1(0.5)
Texas	18(2.1)	82(2.1)	19(1.8)	0(0.2)	7(1.1)	93(1.1)	43(2.5)	2(0.6)
Utah	32(2.2)	63(2.2)	12(1.8)	0(0.2)	12(1.3)	88(1.3)	31(1.5)	1(0.4)
Virginia	16(1.5)	84(1.5)	17(1.6)	0(****)	5(0.8)	95(0.8)	39(2.0)	2(0.5)
Washington	26(2.1)	74(2.1)	15(1.8)	1(0.4)	9(1.2)	91(1.2)	34(2.4)	2(0.6)
West Virginia	26(2.4)	74(2.4)	10(1.7)	0(****)	8(1.3)	92(1.3)	27(2.0)	1(0.3)
Wisconsin †	18(1.7)	82(1.7)	14(2.1)	0(****)	5(1.1)	95(1.1)	43(2.2)	1(0.5)
Wyoming	29(2.2)	71(2.2)	12(1.5)	0(0.2)	8(1.0)	92(1.0)	35(3.6)	2(0.8)
Other Jurisdictions								
District of Columbia	47(3.6)	53(3.6)	5(1.3)	0(****)	27(2.2)	73(2.2)	17(1.7)	1(0.5)
DoDEA/DDESS	18(2.6)	82(2.6)	31(4.5)	3(1.8)	8(2.0)	92(2.0)	45(4.9)	8(2.4)
DoDEA/DoDDS	15(1.7)	85(1.7)	21(1.7)	1(0.3)	6(1.2)	94(1.2)	41(2.9)	2(0.7)
Virgin Islands	50(5.3)	50(5.3)	5(1.7)	***(****)	30(5.6)	70(5.6)	11(3.0)	***

The standard errors of percentages appear in parentheses.
*** Sample size is insufficient to permit a reliable estimate.
† Indicates jurisdiction did not meet one or more of the guidelines for school participation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.2a

THE NATION'S REPORT CARD

Percentage of grade 8 students at or above achievement levels by race/ethnicity for public schools only: 1998

	White				Black				Hispanic			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	11(0.5)	89(0.5)	31(1.0)	1(0.2)	29(1.5)	71(1.5)	7(0.7)	0( )	32(1.4)	68(1.4)	10(1.0)	0(0.1)
States												
Alabama	10(1.1)	90(1.1)	23(1.5)	0(0.2)	28(2.8)	72(2.8)	6(1.6)	0( )	36(6.5)	64(6.5)	8(5.6)	0( )
Arizona	11(1.5)	89(1.5)	29(2.3)	1(0.4)	41(6.5)	59(6.5)	6(4.2)	0( )	32(2.5)	68(2.5)	10(1.4)	0( )
Arkansas	17(1.5)	83(1.5)	17(1.5)	0(0.2)	40(2.1)	60(2.1)	4(1.2)	0( )	45(6.6)	55(6.6)	7(3.1)	0( )
California †	11(1.5)	89(1.5)	32(2.9)	2(0.5)	27(5.0)	73(5.0)	11(3.7)	0( )	38(2.5)	62(2.5)	7(1.2)	0( )
Colorado	9(0.9)	91(0.9)	32(1.9)	1(0.5)	27(5.9)	73(5.9)	9(4.6)	0( )	30(3.0)	70(3.0)	11(1.4)	0( )
Connecticut	5(0.6)	95(0.6)	53(1.6)	6(0.7)	23(3.6)	77(3.6)	15(2.9)	1( )	24(4.1)	76(4.1)	16(3.7)	1(0.8)
Delaware	15(1.4)	85(1.4)	29(2.4)	2(0.8)	30(3.6)	70(3.6)	9(2.1)	0( )	29(6.0)	71(6.0)	14(4.4)	0( )
Florida	15(1.3)	85(1.3)	27(2.2)	1(0.4)	34(2.6)	66(2.6)	7(1.7)	0( )	26(2.3)	74(2.3)	14(2.9)	0( )
Georgia	9(1.2)	91(1.2)	31(2.3)	1(0.4)	28(2.3)	72(2.3)	9(1.4)	0( )	38(5.9)	62(5.9)	10(3.4)	0( )
Hawaii	23(3.5)	77(3.5)	19(2.9)	0( )	39(10.2)	61(10.2)	7(4.5)	0( )	42(4.3)	58(4.3)	5(1.9)	0( )
Kentucky	14(1.0)	86(1.0)	23(1.8)	1(0.4)	28(4.1)	72(4.1)	7(2.4)	0( )	41(6.2)	59(6.2)	10(4.8)	1( )
Louisiana	14(1.7)	86(1.7)	17(1.4)	0(0.2)	38(3.5)	62(3.5)	4(1.0)	0( )	45(4.7)	55(4.7)	5(2.9)	0( )
Maine	13(1.3)	87(1.3)	33(1.8)	2(0.5)	***(***)				***(***)			
Maryland	10(1.3)	90(1.3)	32(2.0)	1(0.4)	27(2.9)	73(2.9)	7(2.4)	0( )	32(5.5)	68(5.5)	8(3.0)	0( )
Massachusetts	9(1.1)	91(1.1)	36(2.1)	3(0.7)	23(4.5)	77(4.5)	9(3.6)	0( )	37(4.8)	63(4.8)	7(1.8)	0( )
Minnesota †	13(1.1)	87(1.1)	28(2.3)	1(0.3)	40(13.0)	60(13.0)	9(3.9)	0( )	45(5.8)	55(5.8)	5(3.5)	0( )
Mississippi	14(1.9)	86(1.9)	18(1.4)	0( )	35(2.3)	65(2.3)	4(1.0)	0( )	57(10.8)	43(10.8)	1( )	0( )
Missouri	17(1.5)	83(1.5)	20(1.7)	0(0.1)	36(4.1)	64(4.1)	4(1.9)	0( )	45(7.0)	55(7.0)	4(2.0)	0( )
Montana †	12(1.2)	88(1.2)	27(2.0)	1(0.3)	***(***)				27(8.6)	73(8.6)	10(5.5)	0( )
Nevada	16(1.0)	84(1.0)	22(1.3)	1(0.3)	27(4.9)	73(4.9)	9(3.8)	0( )	40(3.3)	60(3.3)	7(1.7)	0( )
New Mexico	12(1.4)	88(1.4)	29(2.4)	2(0.6)	30(7.5)	70(7.5)	12(6.0)	0( )	26(1.6)	74(1.6)	12(1.4)	0( )
New York †	7(1.0)	93(1.0)	30(2.2)	0(0.2)	27(4.3)	73(4.3)	7(2.2)	0( )	31(3.2)	69(3.2)	6(1.4)	0( )
North Carolina	10(1.3)	90(1.3)	35(2.2)	2(0.6)	24(2.3)	76(2.3)	11(1.6)	0( )	30(4.6)	70(4.6)	21(5.6)	1( )
Oklahoma	8(1.2)	92(1.2)	30(1.6)	1(0.2)	25(5.3)	75(5.3)	7(4.1)	0( )	25(6.0)	75(6.0)	8(3.3)	0( )
Oregon	15(1.2)	85(1.2)	29(1.7)	1(0.4)	***(***)				28(3.7)	72(3.7)	13(3.7)	0( )
Rhode Island	12(1.4)	88(1.4)	30(1.6)	2(0.6)	29(5.1)	71(5.1)	12(3.6)	0( )	36(3.4)	64(3.4)	7(1.8)	0( )
South Carolina	11(1.2)	89(1.2)	22(1.6)	0(0.2)	32(3.1)	68(3.1)	5(1.4)	0( )	45(4.8)	55(4.8)	5(3.0)	1( )
Tennessee	11(1.5)	89(1.5)	28(2.2)	1(0.4)	27(4.6)	73(4.6)	10(2.4)	0( )	38(6.9)	62(6.9)	13(5.3)	0( )
Texas	7(0.9)	93(0.9)	41(2.2)	2(0.6)	17(4.1)	83(4.1)	20(4.0)	0( )	18(2.5)	82(2.5)	20(2.0)	0(0.3)
Utah	18(1.3)	82(1.3)	24(1.3)	1(0.3)	***(***)				44(4.0)	56(4.0)	7(2.5)	0( )
Virginia	8(0.9)	92(0.9)	33(1.8)	1(0.3)	18(1.9)	82(1.9)	12(1.7)	0( )	12(3.1)	88(3.1)	17(3.2)	0( )
Washington	13(1.6)	87(1.6)	29(2.1)	2(0.5)	31(4.2)	69(4.2)	11(4.5)	0( )	40(5.6)	60(5.6)	9(2.1)	0( )
West Virginia	16(1.5)	84(1.5)	19(1.7)	0(0.2)	21(6.6)	79(6.6)	14(5.0)	0( )	46(10.8)	54(10.8)	3( )	0( )
Wisconsin †	10(1.0)	90(1.0)	31(1.7)	1(0.4)	21(4.8)	79(4.8)	15(3.7)	0( )	23(5.8)	77(5.8)	12(4.5)	0( )
Wyoming	17(1.3)	83(1.3)	25(2.0)	1(0.5)	***(***)				30(3.6)	70(3.6)	12(3.4)	1(0.3)
Other Jurisdictions												
District of Columbia	20(8.4)	80(8.4)	43(9.0)	4( )	37(1.8)	63(1.8)	10(1.4)	0( )	43(6.8)	57(6.8)	8(3.9)	1( )
DoDEA/DDESS	10(2.3)	90(2.3)	46(4.2)	8(2.8)	17(4.2)	83(4.2)	26(4.8)	3(1.9)	15(3.6)	85(3.6)	32(5.3)	4(1.9)
DoDEA/DoDDS	9(1.0)	91(1.0)	37(2.8)	2(0.8)	14(2.9)	86(2.9)	22(3.4)	1( )	13(3.6)	87(3.6)	27(3.6)	1(0.8)
Virgin Islands	***(***)				38(3.9)	62(3.9)	8(2.3)	0( )	44(9.9)	56(9.9)	7(2.9)	0( )

The standard errors of percentages appear in parentheses

***(***) Insufficient sample size. Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.2b

THE NATION'S REPORT CARD naep

Percentage of grade 8 students at or above achievement levels by race/ethnicity for public schools only: 1998

	Asian/Pacific Islander				American Indian			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	11(2.6)	89(2.6)	33(3.7)	2(1.2)	29(4.9)	71(4.9)	8(2.7)	0(---)
States								
Alabama	***(***)	***(***)	***(***)	***(***)	***(***)	***(***)	***(***)	
Arizona	16(5.0)	84(5.0)	36(8.2)	1(---)	34(7.1)	66(7.1)	9(5.7)	0(---)
Arkansas	***(***)				***(***)			
California †	11(2.5)	89(2.5)	38(5.5)	3(1.5)	***(***)			
Colorado	7(3.3)	93(3.3)	37(6.3)	2(---)	***(***)			
Connecticut	***(***)				***(***)			
Delaware	***(***)				***(***)			
Florida	11(4.5)	89(4.5)	36(6.0)	2(---)	***(***)			
Georgia	15(6.0)	85(6.0)	28(6.9)	2(---)	***(***)			
Hawaii	25(1.3)	75(1.3)	17(1.4)	1(0.5)	***(***)			
Kentucky	***(***)				***(***)			
Louisiana	***(***)				***(***)			
Maine	***(***)				***(***)			
Maryland	5(2.7)	95(2.7)	40(7.4)	4(---)	***(***)			
Massachusetts	8(3.2)	92(3.2)	37(7.2)	1(---)	***(***)			
Minnesota †	27(5.9)	73(5.9)	16(5.5)	1(---)	***(***)			
Mississippi	***(***)				***(***)			
Missouri	***(***)				***(***)			
Montana †	***(***)				28(6.0)	72(6.0)	15(4.5)	0(---)
Nevada	13(4.1)	87(4.1)	19(6.3)	0(---)	28(9.5)	72(9.5)	12(3.5)	0(---)
New Mexico	***(***)				28(3.8)	72(3.8)	11(2.2)	0(---)
New York †	18(4.7)	82(4.7)	26(7.8)	1(---)	***(***)			
North Carolina	***(***)				23(9.2)	77(9.2)	17(5.8)	0(---)
Oklahoma	***(***)				16(2.9)	84(2.9)	15(3.4)	0(---)
Oregon	13(4.3)	87(4.3)	34(5.7)	4(2.8)	31(7.9)	69(7.9)	14(4.9)	0(---)
Rhode Island	16(8.7)	84(8.7)	17(4.9)	0(---)	***(***)			
South Carolina	***(***)				***(***)			
Tennessee	***(***)				***(***)			
Texas	8(4.3)	92(4.3)	41(7.7)	2(---)	***(***)			
Utah	28(5.9)	72(5.9)	15(5.2)	1(---)	44(9.3)	56(9.3)	6(---)	0(---)
Virginia	6(2.7)	94(2.7)	41(6.8)	2(---)	***(***)			
Washington	15(2.4)	85(2.4)	26(5.1)	1(---)	30(6.7)	70(6.7)	5(3.1)	0(---)
West Virginia	***(***)				***(***)			
Wisconsin †	***(***)				***(***)			
Wyoming	***(***)				40(7.3)	60(7.3)	11(6.0)	0(---)
Other Jurisdictions								
District of Columbia	***(***)				***(***)			
DoDEA/DDESS	***(***)				***(***)			
DoDEA/DoDDS	8(2.5)	92(2.5)	34(6.9)	1(1.0)	***(***)			
Virgin Islands	***(***)				***(***)			

The standard errors of percentages appear in parentheses.
***(***) Insufficient sample size. --- Sample size is insufficient to permit a reliable estimate.
† Indicates jurisdiction did not meet one or more of the guidelines for school participation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.3a

Percentage of grade 8 students at or above achievement levels by parents' highest level of education for public schools only: 1998

	Graduated from college				Some education after high school				Graduated from high school			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	12(0.6)	88(0.6)	33(1.2)	2(0.2)	19(0.9)	81(0.9)	19(0.9)	0(0.1)	17(1.3)	83(1.3)	18(1.2)	0(0.2)
States												
Alabama	14(1.6)	86(1.6)	23(1.6)	0(0.3)	18(2.0)	82(2.0)	12(1.9)	0(—)	13(2.6)	87(2.6)	15(2.8)	0(0.3)
Arizona	13(2.2)	87(2.2)	32(2.2)	1(0.4)	23(2.6)	77(2.6)	14(2.7)	0(—)	19(2.6)	81(2.6)	15(2.3)	0(—)
Arkansas	18(2.2)	82(2.2)	19(2.1)	0(0.3)	25(2.2)	75(2.2)	12(1.9)	0(—)	27(2.5)	73(2.5)	9(1.8)	0(—)
California †	13(1.6)	87(1.6)	32(2.6)	2(0.6)	26(2.9)	74(2.9)	14(1.9)	0(—)	27(3.0)	73(3.0)	11(2.3)	0(—)
Colorado	9(0.9)	91(0.9)	34(1.6)	1(0.3)	16(2.3)	84(2.3)	22(2.5)	1(—)	15(2.0)	85(2.0)	18(3.5)	1(—)
Connecticut	5(0.8)	95(0.8)	57(1.7)	7(1.0)	13(2.9)	87(2.9)	29(2.8)	1(0.5)	9(2.2)	91(2.2)	33(3.6)	1(1.0)
Delaware	16(2.0)	84(2.0)	30(2.6)	2(0.9)	21(2.0)	79(2.0)	18(1.8)	1(—)	20(2.4)	80(2.4)	19(4.7)	1(—)
Florida	17(1.7)	83(1.7)	25(2.4)	1(0.4)	24(2.0)	76(2.0)	15(2.3)	0(0.2)	21(2.4)	79(2.4)	19(2.5)	0(—)
Georgia	12(1.5)	88(1.5)	31(2.2)	1(0.5)	21(1.7)	79(1.7)	15(1.8)	0(—)	21(2.9)	79(2.9)	16(3.2)	0(—)
Hawaii	22(1.9)	78(1.9)	20(1.4)	1(0.8)	31(2.2)	69(2.2)	11(2.4)	0(—)	29(4.1)	71(4.1)	12(2.7)	0(—)
Kentucky	9(1.2)	91(1.2)	31(3.5)	2(—)	17(1.5)	83(1.5)	15(1.7)	0(—)	17(2.2)	83(2.2)	17(2.1)	0(—)
Louisiana	20(2.3)	80(2.3)	16(2.1)	0(0.3)	27(1.9)	73(1.9)	8(1.1)	0(—)	25(2.5)	75(2.5)	11(1.8)	0(—)
Maine	10(1.2)	90(1.2)	40(1.9)	3(0.9)	15(2.4)	85(2.4)	25(3.0)	1(0.5)	15(3.1)	85(3.1)	26(3.5)	1(0.7)
Maryland	12(1.8)	88(1.8)	31(2.2)	1(0.5)	20(2.5)	80(2.5)	15(2.3)	0(0.2)	19(2.9)	81(2.9)	13(2.1)	0(—)
Massachusetts	8(1.1)	92(1.1)	42(2.4)	4(1.0)	16(2.0)	84(2.0)	19(2.3)	0(—)	19(2.8)	81(2.8)	22(3.0)	0(—)
Minnesota †	12(1.3)	88(1.3)	32(2.9)	1(0.4)	20(2.6)	80(2.6)	18(2.0)	1(—)	21(3.5)	79(3.5)	16(2.4)	0(—)
Mississippi	22(1.8)	78(1.8)	15(1.4)	0(—)	30(3.1)	70(3.1)	7(1.5)	0(—)	25(3.0)	75(3.0)	7(1.6)	0(—)
Missouri	13(1.6)	87(1.6)	25(1.7)	1(0.2)	24(2.2)	76(2.2)	12(1.9)	0(—)	22(2.3)	78(2.3)	14(2.5)	0(—)
Montana †	11(1.5)	89(1.5)	31(2.8)	2(0.3)	15(1.8)	85(1.8)	21(2.6)	0(—)	20(2.6)	80(2.6)	16(3.2)	0(—)
Nevada	16(1.4)	84(1.4)	23(2.1)	1(0.4)	21(1.9)	79(1.9)	15(1.5)	0(—)	26(3.1)	74(3.1)	10(1.9)	0(—)
New Mexico	15(1.9)	85(1.9)	26(2.5)	1(0.6)	21(2.0)	79(2.0)	15(2.3)	0(—)	25(3.2)	75(3.2)	13(2.4)	0(—)
New York †	12(1.6)	88(1.6)	28(1.8)	0(0.3)	18(2.9)	82(2.9)	16(1.8)	0(—)	18(2.6)	82(2.6)	14(3.3)	0(—)
North Carolina	11(1.3)	89(1.3)	36(2.4)	2(0.7)	18(2.3)	82(2.3)	20(2.0)	0(—)	21(2.3)	79(2.3)	17(2.5)	0(—)
Oklahoma	7(1.4)	93(1.4)	33(2.3)	1(0.3)	13(2.1)	87(2.1)	20(1.9)	0(—)	16(3.8)	84(3.8)	17(3.1)	0(—)
Oregon	12(1.5)	88(1.5)	36(2.4)	2(0.7)	17(2.4)	83(2.4)	22(3.1)	1(0.4)	23(3.9)	77(3.9)	15(2.3)	0(—)
Rhode Island	12(1.2)	88(1.2)	33(3.2)	2(0.9)	18(2.3)	82(2.3)	21(3.0)	1(—)	18(4.6)	82(4.6)	16(2.8)	0(—)
South Carolina	18(1.7)	82(1.7)	20(1.6)	1(0.2)	24(2.7)	76(2.7)	10(1.3)	0(—)	21(2.9)	79(2.9)	12(2.9)	0(—)
Tennessee	12(1.7)	88(1.7)	33(3.3)	2(0.6)	16(2.3)	84(2.3)	19(2.6)	0(—)	17(2.3)	83(2.3)	17(2.4)	0(—)
Texas	8(1.1)	92(1.1)	39(2.0)	2(0.5)	14(2.0)	86(2.0)	28(2.6)	1(—)	12(2.3)	88(2.3)	27(3.3)	1(—)
Utah	18(1.4)	82(1.4)	27(1.8)	1(0.4)	22(2.0)	78(2.0)	17(1.8)	0(—)	28(4.0)	72(4.0)	13(2.7)	0(—)
Virginia	7(0.9)	93(0.9)	39(2.3)	2(0.5)	15(1.9)	85(1.9)	18(1.5)	0(—)	13(2.2)	87(2.2)	15(2.3)	0(—)
Washington	11(1.2)	89(1.2)	33(2.2)	2(0.7)	19(2.4)	81(2.4)	17(2.4)	1(0.4)	19(3.7)	81(3.7)	20(3.6)	0(—)
West Virginia	11(1.4)	89(1.4)	27(3.4)	1(0.4)	19(2.5)	81(2.5)	14(1.9)	0(—)	20(2.7)	80(2.7)	12(2.7)	0(—)
Wisconsin †	9(1.5)	91(1.5)	34(2.0)	1(0.4)	12(2.3)	88(2.3)	25(2.7)	0(—)	13(2.4)	87(2.4)	22(2.8)	0(—)
Wyoming	15(1.2)	85(1.2)	29(2.1)	1(0.7)	21(2.2)	79(2.2)	19(2.2)	1(—)	24(4.9)	76(4.9)	16(3.8)	0(—)
Other Jurisdictions												
District of Columbia	32(3.1)	68(3.1)	16(1.8)	1(—)	38(2.3)	62(2.3)	9(1.6)	0(0.1)	33(4.4)	67(4.4)	10(2.4)	1(—)
DoDEA/DDESS	11(1.9)	89(1.9)	39(3.3)	6(2.3)	14(3.0)	86(3.0)	37(4.7)	5(2.0)	***(***)			
DoDEA/DoDDS	8(1.5)	92(1.5)	35(2.9)	2(0.6)	11(2.1)	89(2.1)	29(3.5)	1(—)	13(3.6)	87(3.6)	23(8.0)	1(—)
Virgin Islands	39(10.4)	61(10.4)	8(4.1)	0(—)	37(5.8)	63(5.8)	8(3.0)	0(—)	39(8.0)	61(8.0)	8(2.8)	0(—)

The standard errors of percentages appear in parentheses.

***(***) Insufficient sample size. — Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.

DoDDS: Department of Defense Dependents Schools (Overseas).

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.3b

Percentage of grade 8 students at or above achievement levels by parents' highest level of education for public schools only: 1998

	Did not finish high school				I don't know.			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	31(2.4)	69(2.4)	6(1.8)	0(--)	45(3.0)	55(3.0)	3(1.1)	0(--)
States								
Alabama	33(4.5)	67(4.5)	7(2.3)	0(--)	***(***)			
Arizona	42(5.2)	58(5.2)	4(2.8)	0(--)	46(6.5)	54(6.5)	2(--)	0(--)
Arkansas	29(6.1)	71(6.1)	6(3.1)	0(--)	42(8.2)	58(8.2)	4(2.9)	0(--)
California †	45(3.1)	55(3.1)	5(1.9)	0(--)	46(5.9)	54(5.9)	6(3.8)	0(--)
Colorado	45(4.9)	55(4.9)	5(3.0)	0(--)	48(4.5)	52(4.5)	5(--)	1(--)
Connecticut	26(7.7)	74(7.7)	11(4.9)	0(--)	32(8.8)	68(8.8)	16(4.3)	1(--)
Delaware	33(9.4)	67(9.4)	10(6.2)	0(--)	50(6.5)	50(6.5)	4(--)	0(--)
Florida	31(4.8)	69(4.8)	6(3.6)	0(--)	38(6.8)	62(6.8)	9(4.3)	0(--)
Georgia	27(4.7)	73(4.7)	7(2.4)	0(--)	***(***)			
Hawaii	41(8.4)	59(8.4)	7(4.8)	0(--)	41(8.2)	59(8.2)	6(2.6)	0(--)
Kentucky	31(4.9)	69(4.9)	12(5.1)	0(--)	38(6.6)	62(6.6)	8(4.4)	0(--)
Louisiana	30(5.9)	70(5.9)	7(3.1)	0(--)	***(***)			
Maine	***(***)				***(***)			
Maryland	***(***)				***(***)			
Massachusetts	32(5.0)	68(5.0)	7(2.8)	0(--)	***(***)			
Minnesota †	***(***)				***(***)			
Mississippi	29(6.4)	71(6.4)	5(2.7)	0(--)	***(***)			
Missouri	36(6.0)	64(6.0)	6(3.9)	0(--)	49(8.7)	51(8.7)	4(2.7)	0(--)
Montana †	***(***)				***(***)			
Nevada	42(5.3)	58(5.3)	9(2.8)	0(--)	54(5.8)	46(5.8)	5(2.9)	0(--)
New Mexico	36(7.8)	64(7.8)	5(2.9)	0(--)	45(8.5)	55(8.5)	5(3.6)	0(--)
New York †	36(6.7)	64(6.7)	8(4.3)	0(--)	26(7.2)	74(7.2)	7(--)	0(--)
North Carolina	32(6.1)	68(6.1)	7(3.4)	0(--)	***(***)			
Oklahoma	27(8.2)	73(8.2)	8(3.4)	0(--)	***(***)			
Oregon	38(6.4)	62(6.4)	11(3.3)	1(--)	36(8.7)	64(8.7)	4(--)	0(--)
Rhode Island	38(9.3)	62(9.3)	6(3.4)	0(--)	30(4.6)	70(4.6)	12(4.0)	0(--)
South Carolina	23(4.7)	77(4.7)	8(3.1)	0(--)	***(***)			
Tennessee	26(4.3)	74(4.3)	11(3.7)	0(--)	***(***)			
Texas	18(4.0)	82(4.0)	13(2.7)	0(--)	30(6.3)	70(6.3)	6(4.0)	0(--)
Utah	***(***)				***(***)			
Virginia	24(6.9)	76(6.9)	9(3.9)	0(--)	***(***)			
Washington	45(6.6)	55(6.6)	7(3.8)	0(--)	51(8.5)	49(8.5)	11(--)	0(--)
West Virginia	37(5.7)	63(5.7)	6(3.0)	0(--)	34(8.6)	66(8.6)	10(4.3)	0(--)
Wisconsin †	***(***)				***(***)			
Wyoming	35(9.5)	65(9.5)	11(5.0)	0(--)	***(***)			
Other Jurisdictions								
District of Columbia	27(9.9)	73(9.9)	9(5.0)	0(--)	***(***)			
DoDEA/DDESS	***(***)				***(***)			
DoDEA/DoDDS	***(***)				***(***)			
Virgin Islands	***(***)				***(***)			

The standard errors of percentages appear in parentheses.
***(***) Insufficient sample size. — Sample size is insufficient to permit a reliable estimate.
† Indicates jurisdiction did not meet one or more of the guidelines for school participation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.4

Percentage of grade 8 students at or above achievement levels by type of location for public schools only: 1998

	Central city				Urban fringe/large town				Rural/small town			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	22(1.3)	78(1.3)	19(1.4)	1(0.2)	14(1.1)	86(1.1)	29(1.7)	1(0.2)	16(1.0)	84(1.0)	23(1.4)	1(0.2)
States												
Alabama	17(2.6)	83(2.6)	19(2.8)	1(0.4)	14(2.9)	86(2.9)	19(3.1)	0( )	18(2.1)	82(2.1)	16(1.7)	0( )
Arizona	21(2.0)	79(2.0)	20(2.1)	1(0.2)	15(2.9)	85(2.9)	26(3.1)	1(0.6)	25(3.6)	75(3.6)	13(3.1)	0( )
Arkansas	23(3.3)	77(3.3)	15(2.2)	1( )	20(3.7)	80(3.7)	17(3.9)	0( )	24(1.8)	76(1.8)	12(1.4)	0( )
California †	26(2.9)	74(2.9)	20(2.8)	1(0.3)	22(2.0)	78(2.0)	21(2.3)	1(0.5)	***(***)			
Colorado	18(2.0)	82(2.0)	24(2.1)	1(0.4)	11(1.4)	89(1.4)	29(2.4)	1(0.5)	14(2.1)	86(2.1)	27(4.2)	1(0.5)
Connecticut	22(3.7)	78(3.7)	20(2.8)	1(0.4)	6(0.8)	94(0.8)	47(2.4)	4(0.7)	5(1.5)	95(1.5)	56(2.8)	7(1.4)
Delaware	21(1.8)	79(1.8)	23(1.8)	2(0.8)	19(2.2)	81(2.2)	22(2.2)	1( )	19(2.2)	81(2.2)	22(2.2)	1(0.5)
Florida	22(1.5)	78(1.5)	19(2.1)	1(0.2)	20(1.8)	80(1.8)	20(2.6)	1(0.5)	26(3.1)	74(3.1)	15(4.1)	0( )
Georgia	22(3.5)	78(3.5)	18(2.9)	1( )	13(1.6)	87(1.6)	27(2.6)	1(0.4)	22(2.2)	78(2.2)	18(2.7)	0( )
Hawaii	24(2.4)	76(2.4)	19(1.7)	1(0.9)	29(2.1)	71(2.1)	13(1.9)	0( )	29(2.5)	71(2.5)	13(1.7)	0( )
Kentucky	18(3.5)	82(3.5)	23(5.9)	2( )	16(1.7)	84(1.7)	19(2.4)	0( )	16(1.2)	84(1.2)	21(2.3)	0( )
Louisiana	31(3.4)	69(3.4)	11(2.3)	0( )	24(2.9)	76(2.9)	10(1.5)	0( )	20(2.4)	80(2.4)	13(1.8)	0( )
Maine	15(3.3)	85(3.3)	33(3.9)	3(1.7)	16(3.2)	84(3.2)	31(3.9)	2(0.8)	13(1.8)	87(1.8)	32(1.9)	2(0.6)
Maryland	32(5.3)	68(5.3)	11(3.2)	0( )	15(1.5)	85(1.5)	25(2.0)	1(0.4)	12(3.8)	88(3.8)	25(4.0)	0( )
Massachusetts	22(2.5)	78(2.5)	18(3.8)	1(0.6)	10(1.9)	90(1.9)	37(3.6)	2(1.2)	9(1.5)	91(1.5)	35(2.9)	2(1.0)
Minnesota †	36(4.7)	64(4.7)	13(3.0)	1( )	13(1.9)	87(1.9)	29(3.1)	1(0.4)	16(1.9)	84(1.9)	24(3.1)	1( )
Mississippi	26(5.2)	74(5.2)	13(2.4)	0( )	24(3.3)	76(3.3)	15(2.8)	0( )	27(1.9)	73(1.9)	9(1.2)	0( )
Missouri	25(4.0)	75(4.0)	15(3.3)	0( )	17(2.1)	83(2.1)	19(2.2)	0( )	21(2.3)	79(2.3)	18(2.0)	0( )
Montana †	15(2.3)	85(2.3)	19(3.2)	0( )	18(5.7)	82(5.7)	21(2.5)	1( )	13(1.3)	87(1.3)	28(2.1)	1(0.4)
Nevada	23(1.3)	77(1.3)	16(1.3)	1(0.2)	21(2.3)	79(2.3)	18(1.3)	0( )	23(3.1)	77(3.1)	15(1.5)	0( )
New Mexico	19(2.6)	81(2.6)	24(2.7)	2(0.6)	20(1.6)	80(1.6)	18(2.7)	1(0.4)	23(1.5)	77(1.5)	14(2.2)	0( )
New York †	27(2.8)	73(2.8)	11(2.0)	0( )	8(1.5)	92(1.5)	30(2.9)	1(0.4)	10(2.5)	90(2.5)	24(3.5)	0( )
North Carolina	14(2.1)	86(2.1)	33(3.5)	2(0.7)	16(2.4)	84(2.4)	26(2.0)	1( )	16(2.1)	84(2.1)	24(2.7)	1(0.5)
Oklahoma	16(2.1)	84(2.1)	23(3.7)	0( )	12(1.8)	88(1.8)	24(2.8)	1(0.2)	9(1.7)	91(1.7)	27(2.2)	1(0.3)
Oregon	18(2.7)	82(2.7)	29(3.7)	1(0.6)	16(2.1)	84(2.1)	29(2.3)	2(0.7)	17(2.1)	83(2.1)	23(2.3)	1(0.4)
Rhode Island	25(3.0)	75(3.0)	14(2.4)	0( )	14(1.7)	86(1.7)	30(2.0)	2(0.8)	11(1.8)	89(1.8)	30(3.0)	1(0.7)
South Carolina	17(2.2)	83(2.2)	19(2.5)	0(0.3)	16(1.9)	84(1.9)	18(1.9)	0( )	28(2.3)	72(2.3)	10(1.4)	0( )
Tennessee	19(3.4)	81(3.4)	22(3.8)	1(0.5)	14(2.1)	86(2.1)	28(3.6)	1(0.8)	13(2.0)	87(2.0)	23(2.4)	1(0.3)
Texas	14(2.0)	86(2.0)	29(2.6)	1(0.4)	10(2.6)	90(2.6)	36(3.6)	1(0.5)	12(1.4)	88(1.4)	29(2.6)	1( )
Utah	26(1.9)	74(1.9)	19(2.4)	1(0.4)	20(1.5)	80(1.5)	23(1.6)	1(0.4)	23(4.0)	77(4.0)	20(3.3)	1( )
Virginia	13(1.8)	87(1.8)	21(2.3)	0( )	8(1.0)	92(1.0)	36(2.3)	2(0.6)	13(2.0)	87(2.0)	23(2.3)	0( )
Washington	19(2.1)	81(2.1)	22(2.5)	1(0.7)	15(2.0)	85(2.0)	28(3.2)	1(0.7)	18(2.9)	82(2.9)	22(3.1)	1(0.6)
West Virginia	14(2.5)	86(2.5)	24(2.9)	0( )	14(2.2)	86(2.2)	24(4.4)	1( )	19(1.8)	81(1.8)	16(1.6)	0(0.1)
Wisconsin †	14(2.4)	86(2.4)	25(3.1)	1( )	10(1.6)	90(1.6)	30(3.4)	1(0.4)	11(1.9)	89(1.9)	29(2.7)	1( )
Wyoming	16(2.2)	84(2.2)	25(3.5)	1(0.6)	***(***)				20(1.6)	80(1.6)	22(1.3)	1(0.5)
Other Jurisdictions												
District of Columbia	37(1.9)	63(1.9)	11(1.1)	1(0.3)	***(***)				***(***)			
DoDEA/DDESS	***(***)				***(***)				***(***)			
DoDEA/DoDDS	***(***)				***(***)				***(***)			
Virgin Islands	***(***)				***(***)				39(3.9)	61(3.9)	9(2.[illegible])	1( )

The standard errors of percentages appear in parentheses

***(***) Insufficient sample size. Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation

DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools

DoDDS: Department of Defense Dependents Schools (Overseas)

NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table E.5

Percentage of grade 8 students at or above achievement levels by Free/Reduced-Price School Lunch Program eligibility for public schools only: 1998

	Eligible				Not eligible			
	Below Basic	At or above Basic	At or above Proficient	Advanced	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	29(1.0)	71(1.0)	10(0.5)	0(0.1)	11(0.7)	89(0.7)	32(1.0)	1(0.2)
States								
Alabama	27(2.3)	73(2.3)	6(1.1)	0(---)	10(1.0)	90(1.0)	25(1.7)	0(0.2)
Arizona	33(2.6)	67(2.6)	9(1.5)	0(---)	13(2.0)	87(2.0)	28(2.6)	1(0.3)
Arkansas	38(2.3)	62(2.3)	5(1.0)	0(---)	15(1.4)	85(1.4)	18(1.8)	0(0.3)
California †	40(2.7)	60(2.7)	6(1.9)	0(---)	12(1.5)	88(1.5)	30(2.9)	2(0.6)
Colorado	29(2.6)	71(2.6)	11(2.3)	0(---)	9(1.2)	91(1.2)	32(1.9)	1(0.5)
Connecticut	22(3.9)	78(3.9)	15(2.3)	0(---)	6(0.8)	94(0.8)	51(1.8)	6(0.8)
Delaware	34(2.3)	66(2.3)	10(1.6)	0(---)	14(1.3)	86(1.3)	28(1.9)	1(0.7)
Florida	32(1.7)	68(1.7)	9(1.5)	0(0.1)	13(1.5)	87(1.5)	27(2.4)	1(0.4)
Georgia	31(2.5)	69(2.5)	8(1.3)	0(---)	10(1.2)	90(1.2)	29(1.9)	1(0.4)
Hawaii	40(2.0)	60(2.0)	8(1.6)	0(---)	21(1.2)	79(1.2)	19(1.5)	1(0.5)
Kentucky	26(1.9)	74(1.9)	11(1.8)	0(---)	9(1.1)	91(1.1)	28(2.5)	1(---)
Louisiana	33(2.4)	67(2.4)	5(0.8)	0(---)	15(1.7)	85(1.7)	18(1.8)	0(0.2)
Maine	22(3.3)	78(3.3)	15(2.8)	0(---)	11(1.2)	89(1.2)	38(1.9)	3(0.7)
Maryland	32(3.7)	68(3.7)	6(1.5)	0(---)	11(1.3)	89(1.3)	30(2.0)	1(0.4)
Massachusetts	28(2.3)	72(2.3)	8(1.9)	0(---)	8(1.0)	92(1.0)	39(2.0)	3(0.7)
Minnesota †	35(3.1)	65(3.1)	10(1.7)	0(---)	12(1.1)	88(1.1)	29(2.4)	1(0.3)
Mississippi	35(2.2)	65(2.2)	4(1.0)	0(---)	16(1.6)	84(1.6)	18(1.6)	0(---)
Missouri	33(2.6)	67(2.6)	7(1.3)	0(---)	15(1.4)	85(1.4)	22(1.8)	0(0.1)
Montana †	23(2.8)	77(2.8)	15(3.6)	1(0.4)	10(1.5)	90(1.5)	30(1.9)	1(0.4)
Nevada	37(2.9)	63(2.9)	7(1.5)	0(---)	17(1.5)	83(1.5)	21(1.4)	1(0.2)
New Mexico	30(1.5)	70(1.5)	9(1.3)	0(---)	14(1.4)	86(1.4)	26(2.0)	1(0.4)
New York †	29(3.4)	71(3.4)	8(1.5)	0(---)	8(1.2)	92(1.2)	29(2.6)	1(0.3)
North Carolina	29(2.3)	71(2.3)	11(1.4)	0(---)	8(1.2)	92(1.2)	36(2.3)	2(0.6)
Oklahoma	18(2.4)	82(2.4)	15(1.7)	0(---)	8(1.3)	92(1.3)	31(2.4)	1(0.3)
Oregon	29(2.6)	71(2.6)	13(1.6)	0(---)	12(1.3)	88(1.3)	32(1.9)	2(0.4)
Rhode Island	29(3.1)	71(3.1)	10(1.4)	0(---)	12(1.3)	88(1.3)	31(1.7)	2(0.6)
South Carolina	34(2.9)	66(2.9)	5(1.2)	0(---)	12(1.3)	88(1.3)	22(1.6)	0(0.2)
Tennessee	25(3.0)	75(3.0)	12(2.1)	0(---)	11(1.5)	89(1.5)	30(2.5)	1(0.4)
Texas	20(2.7)	80(2.7)	17(2.0)	0(---)	7(0.9)	93(0.9)	40(1.9)	2(0.4)
Utah	34(2.7)	66(2.7)	13(2.4)	0(0.1)	19(1.4)	81(1.4)	23(1.5)	1(0.3)
Virginia	22(2.2)	78(2.2)	9(1.4)	0(---)	8(0.8)	92(0.8)	33(1.8)	1(0.3)
Washington	33(3.1)	67(3.1)	10(1.6)	0(---)	13(1.2)	87(1.2)	29(2.3)	2(0.6)
West Virginia	27(2.5)	73(2.5)	9(1.2)	0(---)	11(1.1)	89(1.1)	25(2.6)	0(0.2)
Wisconsin †	20(3.0)	80(3.0)	16(2.5)	0(---)	9(1.0)	91(1.0)	33(1.9)	1(0.4)
Wyoming	26(3.1)	74(3.1)	16(1.6)	1(0.3)	17(1.5)	83(1.5)	26(2.2)	1(0.5)
Other Jurisdictions								
District of Columbia	42(3.0)	58(3.0)	7(1.2)	0(---)	24(2.2)	76(2.2)	22(2.1)	2(1.1)
DoDEA/DDESS	13(3.0)	87(3.0)	35(4.2)	5(2.0)	12(1.6)	88(1.6)	40(3.4)	7(2.3)
DoDEA/DoDDS	11(4.0)	89(4.0)	32(8.6)	1(---)	11(2.5)	89(2.5)	30(5.7)	2(---)
Virgin Islands	40(4.1)	60(4.1)	9(2.9)	1(---)	***(***)			

The standard errors of percentages appear in parentheses.
***(***) Insufficient sample size. --- Sample size is insufficient to permit a reliable estimate.
† Indicates jurisdiction did not meet one or more of the guidelines for school participation.
DDESS: Department of Defense Domestic Dependent Elementary and Secondary Schools.
DoDDS: Department of Defense Dependents Schools (Overseas).
NOTE: National results are based on the national assessment sample, not on aggregated state assessment samples. Differences between states and jurisdictions may be partially explained by other factors not included in this table.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

APPENDIX F

State-Level Results for Nonpublic Schools

This appendix presents state-by-state results for students in nonpublic schools. It includes both scale score and achievement level data. Nonpublic school results are reported only for those states with sufficient numbers of participating nonpublic schools.

NONPUBLIC SCHOOLS

Table F.12

Average grade 8 scale scores for the states for nonpublic schools only: 1998

	Average scale score
Nation	167 (1.2)
States	
Arkansas †	164 (5.7)
California †	178 (4.3)
Connecticut †	169 (9.6)
Florida †	159 (4.8)
Georgia	166 (10.8)
Louisiana	158 (3.6)
Maryland †	167 (4.9)
Massachusetts †	172 (7.3)
Montana	150 (10.1)
Nebraska	165 (4.7)
Nevada	162 (8.0)
New Mexico †	181 (9.8)
New York †	155 (6.7)
North Carolina †	175 (5.1)
Rhode Island †	167 (3.8)
Washington	179 (5.2)
West Virginia	179 (7.6)
Other Jurisdictions	
Virgin Islands †	156 (5.3)

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

Table F.2

Percentage of nonpublic school students at or above writing achievement levels: 1998

	Below Basic	At or above Basic	At or above Proficient	Advanced
Nation	4 (0.8)	96 (0.8)	44 (1.6)	3 (0.5)
States				
Arkansas †	6 (3.4)	94 (3.4)	37 (8.8)	1 (***)
California †	1 (***)	99 (***)	56 (6.6)	6 (1.9)
Connecticut †	8 (5.3)	92 (5.3)	49 (10.6)	5 (***)
Florida †	7 (3.9)	93 (3.9)	33 (5.0)	1 (***)
Georgia	7 (***)	93 (***)	44 (12.5)	3 (***)
Louisiana	7 (2.0)	93 (2.0)	31 (5.2)	1 (0.4)
Maryland †	3 (1.7)	97 (1.7)	41 (6.5)	1 (***)
Massachusetts †	4 (1.8)	96 (1.8)	47 (9.5)	8 (3.9)
Montana	17 (7.5)	83 (7.5)	29 (10.5)	1 (***)
Nebraska	8 (3.0)	92 (3.0)	43 (5.8)	4 (2.2)
Nevada	3 (***)	97 (***)	36 (12.6)	1 (***)
New Mexico †	3 (***)	97 (***)	60 (11.8)	11 (4.8)
New York †	14 (5.5)	86 (5.5)	34 (6.8)	1 (0.7)
North Carolina †	2 (1.2)	98 (1.2)	55 (9.5)	3 (***)
Rhode Island †	5 (2.9)	95 (2.9)	44 (5.2)	3 (0.9)
Washington	2 (***)	98 (***)	61 (8.6)	6 (2.9)
West Virginia	2 (***)	98 (***)	60 (11.1)	6 (4.2)
Other Jurisdictions				
Virgin Islands †	13 (4.2)	87 (4.2)	33 (5.5)	4 (***)

*** Sample size is insufficient to permit a reliable estimate.

† Indicates jurisdiction did not meet one or more of the guidelines for school participation.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 Writing Assessment.

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